

INTERNATIONAL NUTRITION COMMUNICATION SERVICE
CONSULTANT REPORT SERIES

INDONESIA

— July 12 - 22, 1984 —

Report on a follow-up visit to Jakarta and
Denpasar concerning the promotion of
breastfeeding in Indonesia.

by

Derrick B. Jelliffe and
E. F. Patrice Jelliffe, INCS Consultants

Prepared by Education Development Center, Inc.
55 Chapel Street, Newton, MA 02160 USA

This project has been conducted under Contract AID/DSAN-C-0209, Office
of Nutrition, Science and Technology Bureau, United States Agency for
International Development, Washington, D.C.

Contents

- I. Purpose of Visit
- II. Jakarta (July 12 & 13)
 - A. Workshop on Breastfeeding and Seminar on Perinatology
 - B. Meeting of BK.PP-ASI
- III. Denpasar (July 15-20)
 - A. Sixth Indonesia Pediatric Congress (Konika VI)
 - B. Post-Congress Course: Immunity and Allergy
- IV. Jakarta (July 22-23)
 - A. Report Preparation
 - B. Coordination Meeting
- V. Recent Developments and Recommendations

Appendices

- A. Workshop on Breastfeeding and Seminar on Perinatology: Program
- B. Education and Training of Health Professionals
- C. Nutrition Content in Nursing Academies
- D. Nutrition Content in Nursing Schools
- E. Review of Possible Integration of Breastfeeding Modules into Medical School Curricula
- F. International Fertility Research Form
- G. Maternal Care Monitoring (MCM)
- H. Modules for Training Health Care Professionals
- I. Guidelines for Promoting Breastfeeding in Health Services
- J. Growth of Breastfed Twins and Unilateral Breastfeeding
- K. Breastfeeding and Immunity: Adaptable Defense in Depth
- L. Guidelines for Rooming-In: An Outline
- M. Ministry of Health's Regulations Concerning the Code of Marketing of Breastmilk Substitutes

I. PURPOSE OF VISIT

The visit of the four INCS consultants* was intended:

(i) to continue the process of assistance, endorsement, and development of the on-going Indonesian breastfeeding program already commenced by the preceding sequence of activities assisted by INCS--(a) the National Travelling Seminars (September 1982), (b) attendance of six Indonesian professionals (one pediatrician and one nurse from Semarang, Jakarta, and Bandung) at the four-week San Diego Lactation Management Seminar (August-September 1983), (c) the visit of Dr. Paul Matulessy to Brazil, San Diego, and UCLA (November 1983), (d) the National Workshop on Infant Feeding Practices (January 1984), and (e) the visit to Indonesia by Mr. Ronald Israel, Director, INCS (February 27 - March 6, 1984);

(ii) to observe the progress of various activities proposed or initiated earlier, including (a) the organization of a central coordinating unit for BK.PP-ASI, (b) the further developments of the training activities at the Lactation Center at Semarang and at the Lactation Clinics in Jakarta and Bandung, (c) the preparation of audio-visual aids for various groups (Dr. Firman Lubis), (d) the process of reviewing the curricula in medical and nursing schools, and general schools in the country (Dr. Paul Matulessy), (e) the development of a communications strategy to assist working women (Dr. Lukas Hendrata), and (f) arrangements for a session on rooming-in for the Indonesian Hospital Administrators Conference (May 1985);

(iii) to assist in the preparation of recommendations or guidelines concerning the promotion of breastfeeding through health services for widespread dissemination to Indonesian pediatricians;

(iv) to sensitize and involve further not only pediatricians, but also perinatologists (including obstetricians) and allergists and immunologists;

*San Diego Lactation Management Program Team: Audrey Naylor and Ruth Wester.
UCLA Team: Derrick and Patrice Jelliffe.

(v) to follow up on preliminary correspondence concerning breastfeeding and weaning foods.

Dove-tailing of Reports

Two separate reports are to be presented, as the activities of the two teams were not identical. The San Diego team visited Semarang, Bandung, and Jakarta and followed up more closely the activities of the graduates of the San Diego Lactation Program. The UCLA team was involved in the "Immunity and Allergy" course, with discussions concerning breastfeeding and weaning foods and with follow-up discussions during the coordination meeting in Jakarta (July 23).

Also, at very full meetings conducted almost exclusively in Bahasa Indonesia, the four consultants obtained complementary information separately from individual translations, and as a result of personal discussions and meetings with a wide range of Indonesian colleagues in Jakarta, Denpasar, and elsewhere.

II. JAKARTA (JULY 12-13)

A. Workshop on Breastfeeding and Seminar on Perinatology (July 12-13)

This workshop was organized jointly by BK.PP-ASI and by PERINASIA (Indonesian Perinatology Association).^{*} The meeting was opened by the Minister of Health of Indonesia, Dr. Surandjono, and was divided into two sections: Scientific Sessions and Specific Sessions (Appendix A). Papers were presented by the UCLA team on "Community Influences and Breastfeeding" (Derrick Jelliffe) and "Breastfeeding: Education and Training of Health Professionals" (Patrice Jelliffe) (Appendix B).

The over-all objective of the workshop was stated as follows:

To make breastfeeding practices and perinatology popular and known in the community, so they can help each other to promote and protect breastfeeding, and perinatal services to decrease morbidity and mortality rate in Indonesia.

^{*}The membership of PERINASIA is wide, including obstetricians, pediatricians (especially neonatologists), nurses, midwives, nutritionists, and other maternal and child health workers. It was founded two years ago and currently has 10 branches. Its president is Dr. Hans Monintja.

The Scientific Sessions covered a range of perinatal issues such as handling the pre-term infant, prenatal services, etc., including the management of breastfeeding and factors influencing it. It was attended by a mixed group of over 300 professionals.

Main points made in the most relevant papers were as follows:

Rooming-in Survey (Dr. Rulina Suradi). This reported on a questionnaire survey to 164 maternity hospitals or units, with responses received from 150. Results showed rooming-in in 82 (55%); babies brought to mother for feeds, 109 (73%); free samples to mothers prelacteal feeds, 58 (39%); midwives do not recognize the term "rooming-in"*, 49/76 (65%). Health professionals in such maternity units, including nurses, midwives, and doctors, usually do not seem to appreciate that the use of formulas interferes with breastfeeding.

Curriculum Analysis (Dr. Paul Matulessy). This reviewed information collected regarding nutrition training in nurse-midwife academies (Appendix C) and in other schools for nurses (SPK) (Appendix D). Approximately one hour only was devoted to the importance of breastfeeding and equal emphasis was placed on bottle feeding. Collection of data continues as part of a review of training in medical schools and at different levels among school children. Subsequent analysis and projected changes are intended.

A conceptual review concerning the inclusion of the 16 breastfeeding training modules, developed during the Travelling Seminars, within the medical curriculum was distributed to participants (Appendix E).

Further data needs to be collected on core curricula in nurse/midwife categories, as a meeting is to be held between July-August 1984 at the Training Centre (pushtiklat) for these categories of personnel which involves 12,000 trainees (8,000 midwives, 4,000 nurses). There is agreed urgency that breastfeeding information be formally included in revised curricula.

*More appropriately termed rawat gabang ("taking care-together") in Bahasa Indonesia.

Women's Organizations (Mrs. Upik Rahman Zainuddin). A review of the current situation was given concerning breastfeeding support groups (see later for overview by Mrs. Mahar Mardjono).

Code for Breastmilk Substitutes (Az. Nasution). Recently an official governmental translation has been made and is in the process of approval (see later). Investigations were suggested to review the practical and ethical problems of compliance by smaller companies.

Reviews of the training activities in Semarang and Bandung were given by Drs. Soedibjakti Adinoto and Emilie Suroto Hamza, respectively. The San Diego Lactation Management Program was described by Dr. Audrey Naylor.

The second part of the workshop was concerned with Specific Sessions reviewing surveys undertaken by BK.PP-ASI and PERINASIA, followed by group discussions and recommendations on (1) Education and Training, (2) Management and Services, (3) Referral System, and (4) Monitoring and Reporting.

General Comments

From the consultants' point of view, a major aspect of the program was the opportunity to reinforce the concept of breastfeeding as an integral part of perinatal care.

(i) Maternal Care Monitoring (MCM). This was facilitated by Professor Sulaiman Sastrawinata's* concept of MCM as a three-fold entity, comprising breastfeeding, birth spacing, and pregnancy care. Information is being derived from data on International Fertility Research Program Forms used at major hospitals (Appendix F). This is a most important intellectual, practical, and motivational "package" for involving obstetricians and midwives in breastfeeding (English version in Appendix G). It seems, however, relatively new, as the initial recommendations of the Working Groups on Education and Training and on Management and Services

*Professor of Obstetrics, Medical School, Pajajaran University, Bandung, and Senior Member of the Committee of Pogi (Indonesian Association of Obstetricians and Gynecologists).

contained almost no reference to breastfeeding--and the consultants had to suggest the inclusion of (a) prenatal care, concerned with lactation (e.g., breast examination, maternal nutrition, education on advantages and management of breastfeeding), (b) labor, minimization of obstetrical "blocks" (e.g., excessive anesthesia, etc.), (c) postnatal care (e.g., earliest mother-baby contact, rooming-in, etc.), and (d) the introduction of full coverage of breastfeeding in training, either in modules (Appendix H) or as a separate course.

(ii) Perinatal Surveys. As would be expected, results from different rural and urban areas of this large country showed considerable differences in various areas of Java, Sulawesi, and Sumatra. However, in general, in Type C hospitals (e.g., majority of small rural units) the equipment (including incubators), resident trained staff (including anesthetists), and logistics (e.g., transport) were all very inadequate.

All mortality rates were high, although the reliability of the data was generally regarded as doubtful. These included perinatal, neonatal, and maternal death rates. The prevalence of low birth weight babies was also considerable (+10%).

Causes of neonatal death were usually headed by asphyxia, but always showed infections (including enteritis) as second most important. Excluding tetanus neonatorum, which was often common, other infections could undoubtedly be reduced economically by the more widespread use of rooming-in and the use of colostrum. This did not seem to be sufficiently recognized and major attention in discussion and recommendations was always given to technological and staffing needs--all likely to be limited by funds and by shortage of personnel.

Recommendations* from this joint meeting will be sent to the Ministry of Health and to POGI (Indonesian Association of Obstetricians and Gynecologists), as they were very much concerned with obstetrical issues,

*Available in Bahasa Indonesia.

such as recognition of high risk pregnancies by midwives and nurses (especially the less educated, younger, or older mothers), referral and transport, improvement of Type C hospitals (with paramedical staff and uncomplicated, less expensive equipment), etc.

The training of perinatal teams was stressed, including basic education of health professionals, paramedicals, and the community itself, and short refresher courses. The coverage suggested earlier was included. Also, the need for the further development of a simple Mother's Card for pregnant women was stressed (for the monitoring for high risk cases and for the encouragement of breastfeeding). This would be a "partner" to the Young Child "Road to Health" Chart.

In addition, a modified and extended document of recommendations or guidelines concerning the "Promotion of Breastfeeding" was drawn up and finalized later, following discussions in Denpasar (Appendix I).

B. Meeting of BK.PP-ASI (July 13--9:00 pm)

An evening meeting of BK.PP-ASI was held, chaired by Dr. Dien, and reports were received on their general work plan (Table 1), major outreach activities, and suggested ways in which breastfeeding "should be promoted in-country" (Figure 1). There are now 17 commissariats or branches--of which (a) 10 are well-established and (b) 7 are relatively new. These were located as follows: (a) Manado, Pontianak, Medan, Palembang, Jakarta, Bandung, Semarang, Yogyakarta, Surabaya, Denpasar; and (b) Ujung Padang, Padang, Solo, Malang, Jayapura, Ambon, and Kupang.

Brief reports, mostly related to limited funds, were received from commissariats, showing varying concerns. These ranged from special problems with Chinese mothers, who were often petty traders in W. Borneo, to the spread of bottle feeding to rural areas in Palembang, to emphasis on seemingly Dutch-derived "gymnastics" (e.g., chest-arm exercises) in preparing for lactation.

Table 1.

| Components of BK.PP-ASI workplan | Action plans of Professional Organizations |
|---|--|
| <p><u>I. Program on Public Service</u></p> <p>Continuing the promotion of Breast Feeding + increasing the activities done in the last 5 years.</p> <p>To :</p> <ol style="list-style-type: none"> 1. Policy Makers 2. Health personnels + Nutritionist + BKKBN 3. Auxillaries (Home Visitors, etc). 4. Students. 5. Other people (Organizations, housewives, etc). | <p><u>I. Public Service</u></p> <ol style="list-style-type: none"> 1. Motivasi dan bimbingan kepada pimpinan RB (IBI, BPRB, PERDHAKI) - Seminar satu hari. 2. Motivasi dan bimbingan kepada tenaga kesehatan (IBI, IDAI, IDI, IDAGI, PERDHAKI). - Seminar satu hari. 3. Motivasi dan informasi kepada masyarakat/mass media (YLK, Dit.Gizi). 4. Penyuluhan tentang kode etik pemasaran susu formula (YLK). 5. Fact sheet (YIS). 6. Bulletin (Warta UPGK, Mawar Melati PERDHAKI). 7. Terjemahan Breast Feeding and Health, UNICEF sebagai background information (PERDHAKI). |
| <p><u>II. Education + Training</u></p> <p>Revising the curriculum on Breast Feeding or enriched with current knowledge.</p> <ul style="list-style-type: none"> - CMS/Medicine school, etc. - Nursing School, etc. - 2-3 years/1 x National Seminar. - 2x/year : Up grading course for midwives, etc. - Consultation Clinic, Manuals. <p>To :</p> <ul style="list-style-type: none"> - Post Graduate : Pediatrics, Public Health, Medicine Nutritionist. - Students. - Nurses/Midwives. - "Non-Key Persons" (Manual ASI). | <p><u>II. Education + Training</u></p> <ol style="list-style-type: none"> 1. Training ASI untuk tenaga kesehatan (Kurikuler) (IDAI, PUSDIKLAT, Dep.Kes., NB-CMS, POGI, IDAGI). |
| <p><u>III. Management Breast Feeding (Tata Laksana PP-ASI)</u></p> <ul style="list-style-type: none"> - Increases the "Mothers Group" numbers + activities (Collab. with B.IV). - Supporting B.IV (Research) for doing the management of ASI in the location of : <ul style="list-style-type: none"> ° Rooming-in ° Lactation clinic ° Consultation Bureau. - Increasing efforts (Communication-Information-Education) or/with mothers : | <p><u>III. Management of Breastfeeding</u></p> <ol style="list-style-type: none"> 1. Pembentukan kelompok kelompok ASI baik di dalam RB maupun di luar RB (PP-ASI, BPRB, Dit.Gizi,KIA, Dep.Kes., PERDHAKI). 2. Pelaksanaan rawat gabung (BPRB, TanKesMas, Dep.Kes., PERDHAKI) 3. Fasilitas menyusui untuk ibu bekerja (Dep.Sos., Menteri U.P.W., Dep.Na.Ker, IDAGI, IDAI, PERDHAKI). |

| | |
|--|---|
| <ul style="list-style-type: none"> - Manuals, Posters, Leaflets, Pocket Books, etc. <p>To :</p> <ul style="list-style-type: none"> - Mothers (pregnant mothers "6 months" + lactating mothers). - Other mothers : Post marriage until the oldest mothers. - Pre-marriages (after age of seventeen). | <ul style="list-style-type: none"> - Tempat penitipan bayi - Tempat penyimpanan ASI |
| <p>IV. <u>Research</u></p> <ul style="list-style-type: none"> - Coordinate and stimulate for doing research on Breast Feeding (Priority of Research). - Inventarisation + Documentation Breast Feeding Research from whole Indonesia. - Public "Research" results in a bulletin (Berita BK.PP-ASI). - Establish : <ul style="list-style-type: none"> - Lactation Clinic - Rooming-in - Consultation Bureau. - Arranging : <ul style="list-style-type: none"> - Seminars - Up grading - Courses, etc. <p>To : Members/Health personnels in Medical School and collab. with UNICEF/WHO/USAID + Litbang Gizi, Litbang Dep.Kes., BKKBN.</p> | <p>IV. <u>Bidang Riset</u></p> <ol style="list-style-type: none"> 1. Penelitian tentang penggunaan ASI dan perbaikan gizi (IDAI, IDAGI, IBI). 2. Penelitian tentang ibu bekerja (YIS, YLK). |
| <p>V. <u>Legislation + Ethic</u></p> <ol style="list-style-type: none"> 1. Support the Government to realize the ETHIC CODE + legislation. 2. Collab. with "key persons" + consumer (YLK) to get a success on that. 3. Motivation of the "key persons on that" <p>to : - Industry.</p> <ul style="list-style-type: none"> - "Key Persons" - Drug Stores, etc. | <p>V. <u>Legislasi dan Etik</u></p> <ol style="list-style-type: none"> 1. Penerapan kode etik pada intern lembaga (IBI, PERDHAKI, YanKesMas). 2. Pengembangan kode etik pemasaran susu formula (YLK, IDAI, Dit.Gizi, Dit.Jen.POM, IDAGI). 3. Monitoring promosi susu formula (YLK, YIS). |

SUGGESTION FOR WAYS IN WHICH BREAST FEEDING SHOULD BE PROMOTED IN-COUNTRY

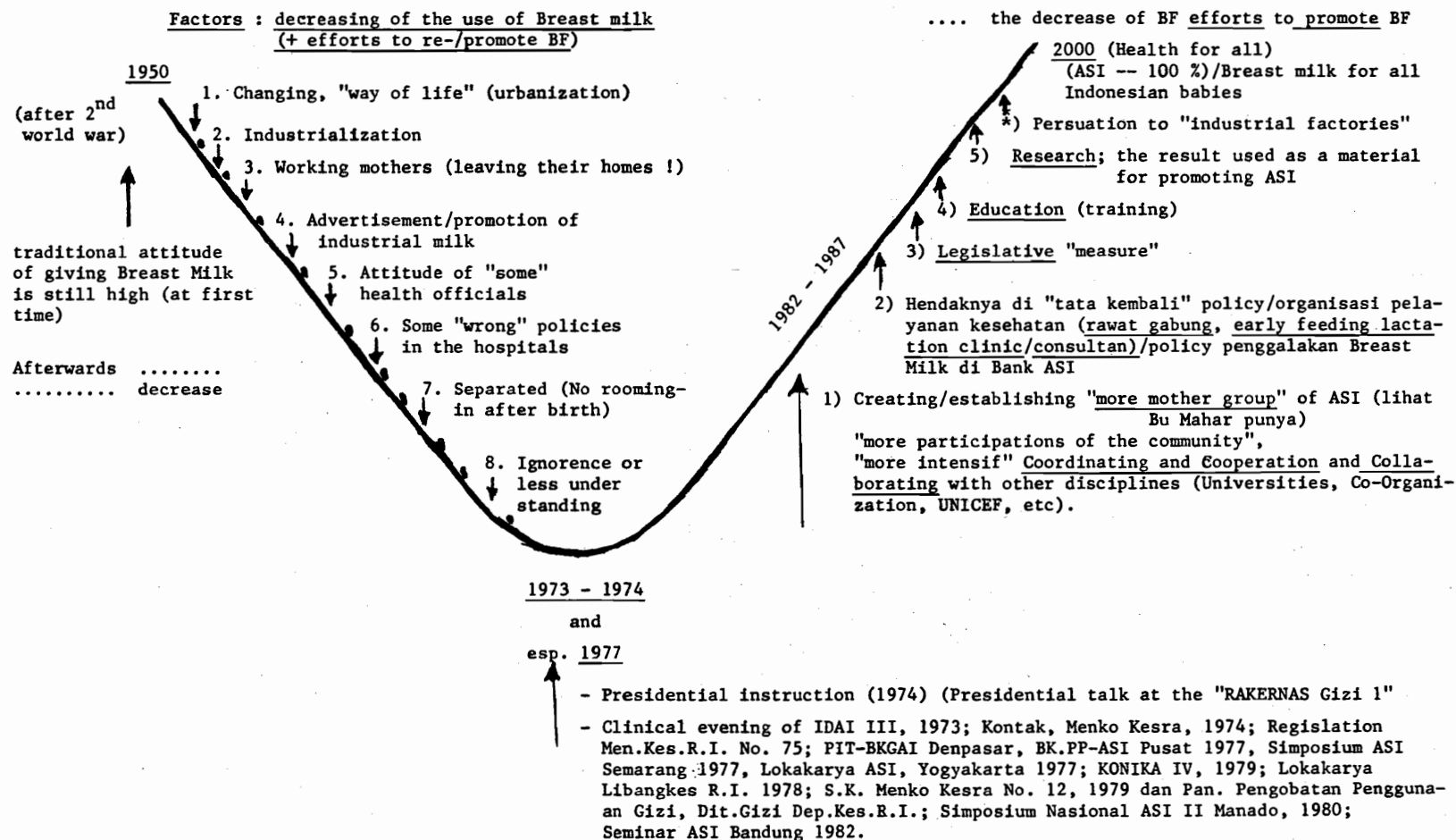


Figure 1.

III. DENPASAR (JULY 15-20)

A. Sixth Indonesian Pediatric Congress (Konika VI) (July 15-19)

Activities

(1) Formal. The UCLA team presented papers at the Plenary Session on July 7 chaired by Dr. Rulina Suradi and Dr. Yati Sunarto, on "Problema Pemberian Air Susu Ibu" (Problems in Breastfeeding) with the main presentation on "Growth of Breastfed Twins and Unilateral Breastfeeding" (Patrice Jelliffe) (Appendix J), and a review on "Rooming-in: Worldwide Considerations" (Derrick Jelliffe).

Other papers were given by Indonesian colleagues on allergens and drugs in human milk, the increase in breastfeeding during treatment in the Jakarta pediatric diarrhea ward since the introduction of the breastfeeding program, the galactagogue effect (probably psychological) of Moloco-B12 tablets (extract of placenta of unknown origin plus vitamin B12), etc. Following presentations, questions were answered and discussion ensued.

(2) Informal. Very many opportunities, including working meals, occurred for obtaining information and exploring potential future joint developments.

These included:

(i) Brief discussion on relevant issues with Dr. Surandjono, Minister of Health, Indonesia (July 16).

(ii) Coordination sessions with Prof. Moeljono, Dr. Rulina, Dr. Matulessy, and Dr. Sofyat Ismail (Past President, Indonesian Pediatric Association) concerning finalization and subsequent publication of recommendations or guidelines concerning the promotion of breastfeeding through Paediatrica Indonesia (of which Dr. Rulina is on the editorial board, July 17 and 18) (Appendix I).

(iii) Discussions were held with family planning authorities, and it was reported that intramuscular progestogens were gaining in popularity. This seemed to have least effect on breast milk production. Also in Muslim circumstances the amenorrhea was a cultural and religious advantage--as women are forbidden to pray during menstruation. The use of low value

(Rupiah 5) coins for family planning education was mentioned. On these, an ideal sized family is depicted, with two children.

(iv) Meetings were held with Dr. Samsudin, Chairman, Nutrition Section, Indonesian Pediatric Association, together with Prof. Moeljono, on three occasions. Interest was expressed in the need to review the practices and actual and potential developments of "alternative foods" for infants, while continuing breastfeeding. It was emphasized that the "weaning" situation in Indonesia is especially difficult to define and semantically confused, owing to the traditional very early introduction of small amounts of foods in the first weeks of life and the specific word in Bahasa Indonesia (penyapihan = adding foods).

(v) Visits were made to formula outlets, and the relative costs of breast milk substitutes were calculated (Table II). The cheapest seemed to be SNM (full cream, non-instant).

Additionally, the very high cost of processed weaning mixtures was also apparent (Table II). Also, the rich profusion of Indonesian jamus (traditional herbal teas) would seem to facilitate culturally the marketing of imported processed herbal teas, exotically flavored weaning foods, and a plethora of commercial proprietary medicines, both local and imported, of doubtful usefulness anywhere, including Indonesia.

B. Post-Congress Course (July 20)

This graduate course for physicians was concerned with "Immunity and Allergy." A paper was presented on "Breastfeeding and Immunity: Adaptable Defense in Depth" (Derrick Jelliffe) (Appendix K).

The course was attended by over 150 participants and offered an opportunity for the significance of breastfeeding to be presented to another group--pediatric immunologists and allergists.

Table II: Prices of formulas, some weaning mixtures, and herbal tea (Denpasar, July 1984)

(1) Formulas or powdered milks

Milupa (West Germany)

Milupa formula 450 g. \$3.30

Milupa Adaptamil 450 g. \$3.50
(low fat, low lactose)

Nutricia (Netherlands)

Nutricia Nutrilon 400 g. Not obtained
(adapted infant formula)

Indonesia

Vita (humanized) 400 g. \$2.20

SNK (instant) 400 g. \$2.00

CCM (low lactose) 400 g. \$2.00

SGM (full cream powder) 400 g. \$2.00

SNM (full cream, not instant) 400 g. \$1.30

Miles (whole milk) 400 g. \$1.50

Klim (Netherlands)

Instant 400 g. \$2.75

Regular 400 g. \$2.35

(2) Weaning mixtures

Milna (?West Germany)

Chicken/rice 300 g. \$2.00

Milk/cereal 300 g. \$1.50

Milupa (West Germany)

Milk cereal (apple; orange; honey flavor) 250 g. \$2.15
(semolina)

(3) Herbal teas

Milupa (West Germany)

Herbal tea (instant granulated) 200 g. \$1.85

Comments

Both the Congress and the Post-Congress Course emphasized:

(i) the need for highly scientific technical presentations to make practical, sometimes self-evident points for pediatric audiences--in the same way as in the USA;

(ii) the acceptance of extensive involvement of the infant and drug industries in the support of pediatric activities without apparent cognizance of "endorsement by association," etc.;

(iii) presentation of scientific, but essentially sales, papers sponsored by various pharmaceutical companies (e.g., for expensive oral treatment for asthma needing to be continued for years, recommendation of a costly national hepatitis vaccination program as a public health priority).

IV. JAKARTA (JULY 22-23)

A final coordination meeting had been proposed for Monday, July 23, in order to collect information on aspects of the breastfeeding program not covered. However, because of scheduling problems, especially following absences at the Pediatric Congress, etc., a continuous meeting was the best that could be achieved with different individuals present at varying times and periods.

Participants

Dr. Firman Lubis, YKB

Ms. Bianti Djiwanddo, YKB

Mrs. Mahar Mardjono, BK.PP-ASI Breastfeeding Management

Dr. Soedibjakti Adinoto, Semarang Lactation Clinic

Sister Ong Gian Nio, Semarang Lactation Clinic

Dr. Andrew Winkarno, Ministry of Health, Center for Education and Training

Dr. Wididastuty, Ministry of Health, i/c Midwifery Training

Mrs. Rocelly Pasaribu, Ministry of Health, Nursing Training

Mrs. Noor Djibayan, Ministry of Health, Midwives Association

Dr. Surandjono, Ministry of Health

Dr. Rulina Suradi, Jakarta Lactation Clinic

Dr. Paul Matulessy, Executive Manager, BK.PP-ASI
Prof. Moeljono Trastotenojo, Department of Pediatrics, Semarang
Mrs. Samiata, Department of Pediatrics, Semarang
Ms. Molly Gingerich, USAID/Jakarta
Mrs. Dorte Jepsen, UNICEF

A wide range of topics was covered in a necessarily fragmentary way. However, the main areas were concerned with the situation and possible developments with regard to information dissemination, training (especially lactation specialists, nurses, and midwives), and mothers' support groups. This discussion is incorporated into the last section of this report, together with recommendations.

V. RECENT DEVELOPMENTS AND RECOMMENDATIONS

Recent developments in the Indonesian program to promote breastfeeding may be considered in relation to (1) the coordination committee and (2) five of its major activities (Figure 2).

Recommendations are given when appropriate, within the scope of the overall BK.PP-ASI work plan (Table I, p. 7), including those related to potential INCS support.

Coordination Committee

Dr. Paul Matulessy has been appointed as Executive Manager of the Coordinating Committee, with two assistants--Ms. Rini Santoso (Process Analyzer/Treasurer) and Mr. Alex Edwin (temporary Administrator). Two other assistants will be recruited in the near future. Funds for this important coordination unit are from a grant made by the Ford Foundation for up to three years.

The organization of the unit is shown in Figure 3. BK.PP-ASI will be represented on the National Food and Nutrition Advisory Board. In the near future, BK.PP-ASI (and its coordination committee) will be legally incorporated as an independent yayasan (non-governmental organization) which will be able to receive and use funds directly and flexibly.

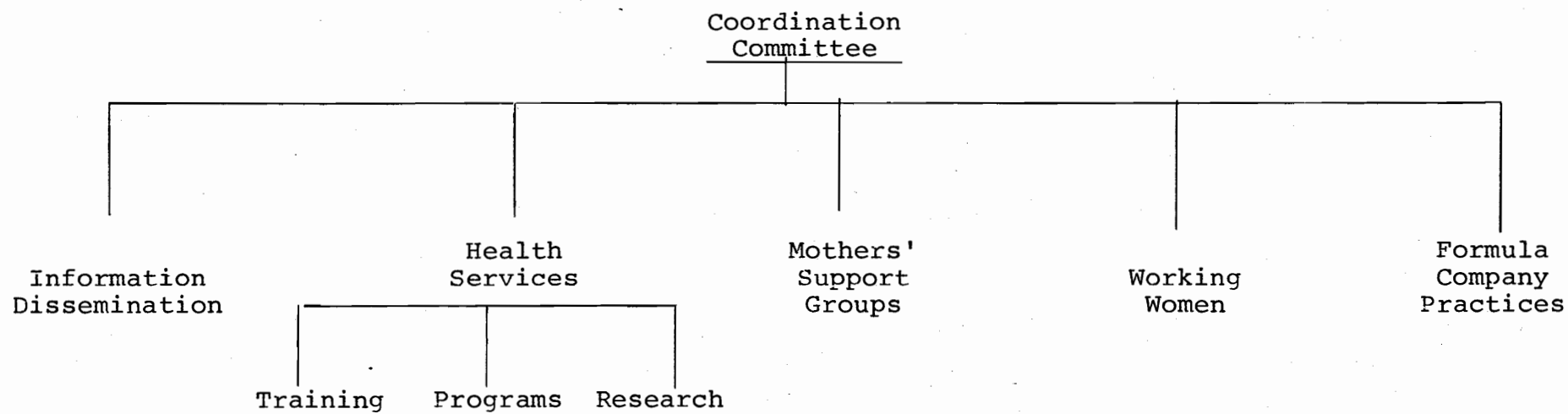


Figure 2. Major Components in Breastfeeding Program

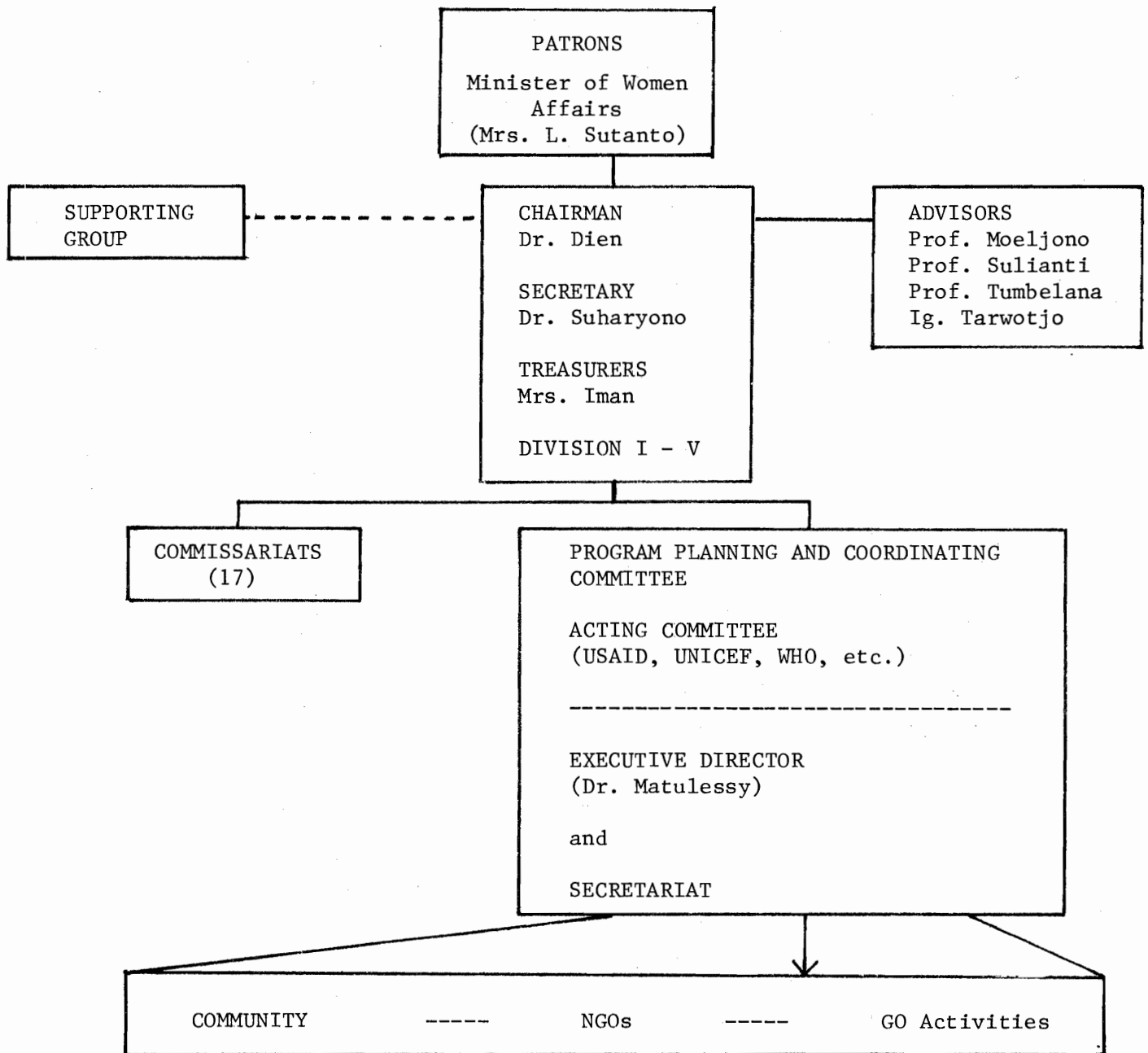


Figure 3. Organization Chart of BK.PP-ASI

In addition to support from the Ford Foundation, UNICEF and USAID, grants are in the process of being obtained from Canadian ICDR (for media development), from the Netherlands (for a study on nutrition and growth), and from ADE, France.

It is suggested that the coordination unit should give priority to further welding together the 17 branches (commissariats) of BK.PP-ASI into a functional, prestigious, and increasingly nationally recognized entity. In light of the huge size of the country and the limited resources for the purpose, the following recommendations, influenced by this recent brief visit, are suggested for consideration by Indonesian colleagues:

(i) Establishment of an independent identity. It is recommended that appropriate legal steps be taken as a top priority to establish an independent yayasan. This would not only assist in further establishing its identity but also would enable funds to be channeled to BK.PP-ASI activities more immediately and directly than at present, and to be used more flexibly than with governmental activities.

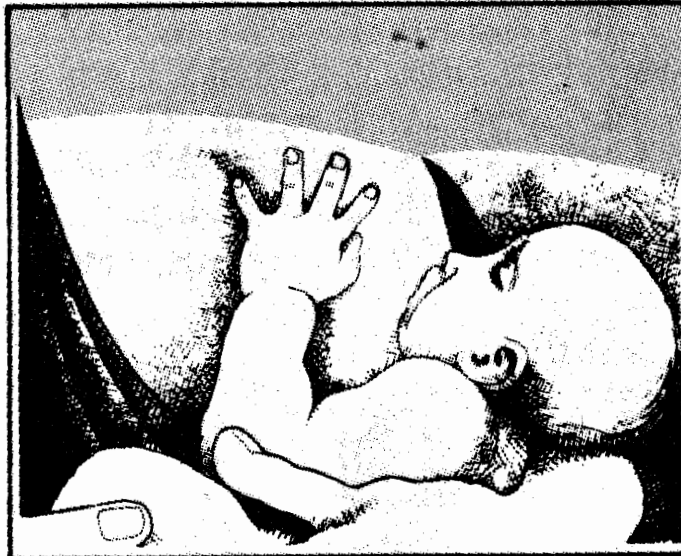
(ii) National Awareness. It is recommended that consideration be given to writing regular features in national newspapers and magazines (such as Balita*). An initial series could be on the history of BK.PP-ASI and the evolution, activities, and components of the Indonesian breastfeeding program, followed by an "ASI Column" dealing with breastfeeding topics, including questions and answers. Reproduction, modification, or separate features for different islands could be a role of the commissariats.

It is also recommended that news items concerning the breastfeeding program be sent to relevant professional journals (e.g., pediatrics, obstetrics, nutrition, nursing, etc.) which include such features as well as scientific articles. It is hoped that publication of the Guidelines for Health Services (Appendix I) will be useful in this respect.

*Interest in breastfeeding among literate women seems to be indicated by July issues of two widely circulated magazines--Balita (Figure 4) and Sartika (Figure 5).

Stop ASI dua jam sebelum dan sesudah **PEMBERIAN VAKSIN POLIO**

Seorang dokter ahli penyakit anak-anak berkebangsaan asing terkejut ketika seorang ibu menyusui anaknya yang baru saja diberi tetesan vaksin polio. Ia terkejut karena dengan demikian vaksin polio itu mubazir, atau paling tidak menurun keampuhannya. Bukankah ASI itu mengandung antibody?



majalah bulanan

balita

untuk orang tua dan pembina balita

ASI melemahkan manfaat vaksinasi?

SEHATAN

Keterkejutan dokter asing itu diutarakan oleh Dr. Masri Singarimbun, Pusat Penelitian Kependudukan UGM, Yogyakarta, lewat ruangan "Surat Pembaca" Harian Kompas tanggal 19 Mei 1984. Konon, selama 20 tahun dokter asing itu bekerja di Afrika, prosedur standar di sana adalah tidak boleh memberikan ASI kepada anak selama 2 jam setelah anak itu mendapatkan tetesan vaksin polio. Hal itu tampaknya tidak dilakukan di Indonesia.

Selanjutnya Masri mengutip tulisan Victor Vaughan di dalam *Nelson Textbook of Pediatrics*, serta tulisan James Gear di dalam *Diseases of Children in the Subtropics and Tropics*, Victor Vaughan menyarankan penundaan pemberian tetesan vaksin polio sampai anak disapih. Sedangkan James Gear menulis perihal pemubaziran tersebut. Saran yang paling jelas dikutip pula dari dalam buku David Werner, *Apa yang Anda Kerjakan Bila Tidak Ada Dokter*, terjemahan dari buku *Where There is No Doctor*. Di dalam buku tersebut tercantum tulisan: "Sebaiknya jangan memberikan air susu kepada bayi dua jam sebelum dan sesudah pemberian tetesan polio."

Dokter Masri mengatakan dalam penuturannya itu, bahwa bila mengikuti saran Victor Vaughan, buat kita tampaknya konservatif, karena harus menunggu terlalu lama. Mungkin anak baru tersapih pada usia dua tahun. Lantas ia bertanya: "Apakah akan kita ikuti saran David Werner yang penting itu?"

Demikian pengutaraan Masri Singarimbun yang ditutupnya dengan permohonan penjelasan kepada para ahli tentang hal itu.

Figure 4.

Sartika

kan urat nadi mereka yang mempero-
leh susu botol merupakan hasil aksi an-
tibodi terhadap protein susu sapi, yang

Perkembangan lebih baik.

Penyelidikan membuktikan bayi

akan diada-adakan. Tetapi sebenarnya
dapat dimengerti. Sebab zat asam ani-
mo dari ASI mempunyai daya maksi-

ASI YANG MENGUNTUNGAN



MENGUNTUNGAN. Penyakit Jantung jarang dijumpai pada bayi-bayi ASI.

terdapat di dalam tubuh bayi non ASI.

*Penyakit jantung jarang terdapat pa-
da bayi-bayi ASI.*

Perkurangnya penyakit usus.

Penyakit luka usus pada anak-anak,

ASI mempunyai perkembangan mulut
dan rahang lebih baik, dibandingkan
dengan bayi-bayi non ASI. Juga bayi
ASI jarang menderita gangguan-gang-
guan pada mulut dan rahang.

Penyebabnya antara lain terletak
pada mekanisme penelanan susu yang

mal terhadap perkembangan otak dan
daya pikir, yang keseluruhannya tum-
buh pesat di tahun-tahun pertama kehi-
dupan bayi.

Tercegah.

Ravi ASI umumnya iarang sekali

Figure 5.

(iii) Reinforcing the network. To reinforce the linkage between the 17 branches of BK.PP-ASI as well as the three developing training clinics in Semarang, Jakarta, and Bandung, it is recommended that a newsletter be initiated as soon as possible, with contributions solicited from all groups involved and with general information on Indonesian developments. This might be commenced as a quarterly, increasing in frequency up to bimonthly or monthly.*

It is also recommended that as much contact as possible be maintained between the main branch and its coordinating committee and the other branches by, for example, meetings (at least annually and preferably more frequently) and visits by the Executive Manager, as time and finances permit.

It is recommended that action projects be encouraged by the branches, possibly on a joint basis (e.g., investigation into procedures in maternity units or marketing tactics of formula companies, etc.), and/or as specific projects considered to be local priorities and with actively involved individuals available. Minor funding could be critical to assist branch projects and needs exploring.

Major Components

Five major, but overlapping, components of the breastfeeding program (Figure 2, p. 15) are: (1) Information Dissemination, (2) Health Services (training, programs, and research), (3) Mothers' Support Groups, (4) Activities to Assist Working Women, and (5) Marketing Practices and Formula Companies.

(1) Information Dissemination

Information dissemination is needed for numerous groups, notably governmental authorities and the public.

In information directed towards governmental authorities, the nutrition and health sections in the current Five-Year Plan (Repelita IV) needs to be the

*The availability of the two technical newsletters would be helpful--
Breastfeeding Abstracts (LLLI) and Mothers and Children (APHA).

guide. Breastfeeding's role in lowering perinatal and infant mortality rates, forming part of oral rehydration, and in assisting with child spacing need continued emphasis.

However, and perhaps less recognized, is the role of colostrum and human milk as one part of any campaign to limit xerophthalmia and protein-energy malnutrition in the second year of life (baduta*).

As significant is the need to ensure that planning authorities recognize that breastfeeding is declining in many places, that in many areas it represents a resource to be protected. On-going data needs collecting.

One also needs to bear in mind realistically that expansion of the dairy and milk processing industries is a national priority. A second government milk processing company, Pt. Mantrust, is due to open in February 1985 in Salatiga, Central Java, with a capacity of 5,000 tons of milk/year.

Information for the public is being prepared by Dr. Firman Lubis and Ms. Bianti Djiwandodo (Project Officer) through YKB (Yayasan Kusuma Buana).

As noted in the Israel Trip Report (February 27 - March 6), they are actively preparing a communications strategy, using focused group interviews, etc. They have managed to interest a commercial advertising firm (Matari) concerned with social marketing, related to environmental health issues. They are planning TV and radio spots, using prestigious and glamorous role models, such as movie stars, as well as short 20-minute programs on family welfare on Sundays and incorporation into a popular equivalent of a soap-opera (Sandiwara). They are considering the possibility of cartoons or puppet shows, as have been used in a UNICEF-assisted prevention of xerophthalmia campaign. As TV and radio are government owned with no advertising, time can be obtained.

*Indonesian village mothers produce about 1/2 liter/day of breast milk in the second year of lactation, while colostrum is an especially rich source of retinol (vitamin A).

YKB is also considering videotapes for some urban postpartum wards and hospital waiting areas, as well as short movies shown as advertisements before feature films in cinemas.

The need for audio-visual and written materials (including slide sets) based on modern knowledge of the psychophysiology and practical techniques of breastfeeding is indicated by some of the previously used materials. For example, a brochure (Figure 6) has been employed which could almost be used as a teaching aid on how to increase breastfeeding problems (e.g., positioning, lack of eye-to-eye contact).

(2) Health Services

A very great deal of activity has taken place in the past year, in (a) training, (b) modification of health services, and (c) (to a less extent) in research. However, as mentioned earlier, reviews by Drs. Matulessy and Rulina indicate that a great deal remains to be done.

(a) Training - Lactation Specialists

It was readily apparent that the Lactation Specialists trained in the San Diego Lactation Program were enthusiastically responsible for training activities for medical and nursing personnel in Semarang, Jakarta, and Bandung, both on a continuing, on-going basis and via short courses. It was also apparent that largely practical training by rotation through established lactation clinics can be more speedily achieved than formal changes in curricula. (Details of these activities will be given in the Naylor-Wester Report.)

The Lactation Center in Semarang can be expected to have an especially significant impact. However, in view of the very large, scattered population and the evident success of the trained Lactation Specialists, it is recommended that 2-to 3-person teams (pediatrician-nurse-midwife-obstetrician) be sent for the San Diego course from all of the major medical-nursing training centers* in the country. To start with and possibly for January 1985,

*There are 14 governmental universities, as well as privately funded universities.



• **PERAWATAN PAYUDARA
UNTUK
WANITA HAMIL & MENYUSUKAN**

Figure 6. Inappropriate Manual

three 2-person teams have been suggested from geographically appropriate areas--Denpasar, Bali; Manado, Sulawesi; Padang, Sumatra.

The San Diego courses undoubtedly represent the best investment of funds in terms of multiplication effects and practical modification of both training and services. The very large size of the country indicates the need for training centers in each of the universities.

Puskesmas-based staff. A very high percentage of prenatal services and deliveries take place in puskesmas (health centers with beds). These are often less than fully staffed, and the doctors in charge spend two years or so in obligatory service after graduating, and (as over the world) rarely remain in rural areas. By contrast, nurses and midwives are not only more numerous, and more in contact with pregnant women, but also are much more permanent puskesmas staff. Currently, five of the priorities for puskesmas are maternal and child health, immunization, oral rehydration, nutrition, and family planning. It is apparent (Figure 7) that breastfeeding plays a role in all of these, and this recognition needs to be incorporated into training and action. This is particularly the case because breastfeeding is reported to be declining in some rural areas, and, in unaffected areas, breastfeeding is an important resource in need of protection.

Puskesmas staff, especially nurses and midwives, also need training because they are involved in the training of kaders (community health workers), of which there are over 22,000 working in the Village Improvement Program (UPGK).

Training of such nursing and midwifery staff poses many problems with finances, transport, and difficulties with being away from their places of work. It is current policy to undertake training actually in puskesmas. It is, therefore, suggested that a priority concern is the development of a curriculum for the puskesmas-based training of nurses and midwives in breastfeeding, including the development of a modified training manual and other teaching aids.

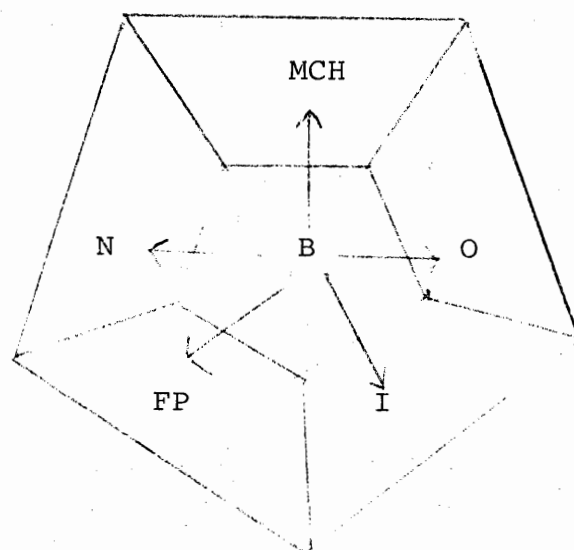


Figure 7. Model of puskesmas priorities centered on breastfeeding*

* Breastfeeding relates to all five priorities. It is responsible for adequate nutrition (N) in early infancy; it prevents diarrhea and should form part of oral rehydration (O); it is itself a protection against some infections and a form of passive immunization (I) for the baby through the mother; it is the natural form of family planning (F), but needing reinforcement with technological contraceptives. Overall, breastfeeding is a major consideration in optimal maternal and child health (MCH).

In addition to general modifications in curricula for nurses and midwives, it is recommended (a) that three senior nurse-midwifery educators* attend the next San Diego course and (b) that a short working conference on the training of hospital and puskesmas nurses and midwives be held, possibly in May 1985 in Semarang, with INCS consultants in nursing education and in lactation management. Such a meeting would be organized by and with experienced nurse educators,* and could be held immediately before or after the Indonesia Hospital Administrators Conference.

Curricula Content and Design. As noted earlier, Dr. Paul Matulessy reported on data collected to date on nutrition training, including breastfeeding in nurse-midwife schools, etc. Further information is to be presented by Dr. Matulessy and probably the San Diego graduates at a meeting on revision of nursing curricula scheduled for August 1984.

It is recommended that the completion of data be undertaken as soon as possible for different categories of curricula for health staff and general schools with a view to the development of national guidelines to be discussed at a possible workshop devoted to the subject.

(b) Programs - Modification of Hospital Services

While much has been achieved, a great deal remains to be undertaken. As anywhere, often a major hurdle is convincing hospital administrators that rooming-in, etc. is not a fad but biologically, epidemiologically, and financially sound.

It is important that Dr. Rulina has persuaded the Indonesian Hospital Administrators Conference (May 1985) to devote half a day to rooming-in. However, it is suggested that two concerns need to be covered at this time--first, a validation that rooming-in works effectively and economically in Indonesia, and second, that scientific and fiscal corroboration is available from other parts of the world, including both more and less developed countries.

*Selection of participants would need to be guided by the pushtiklat (Center for Training Nurses and Midwives) (Director: Dr. Charlie Watimena)

It is recommended that data from recent Indonesian experience be presented, together with a well-documented, up-to-date review from various areas of the world presented by an INCS consultant, and that a manual for the introduction of rooming-in in Indonesia be developed as a result.*

(c) Research

It is suggested that certain research activities are priorities in the Indonesian context. These include: methods of collecting on-going data on the prevalence of breastfeeding in different areas (including rural communities), detailed observation of the actual use (or non-use) of colostrum and of the types and amounts of foods other than breast milk given to young babies; the development of local weight curves of exclusively or predominantly breastfed babies, capable of differentiating real from pseudo-faltering in early infancy; the preparation of a mother's card with appropriate anthropometry and emphasis on breastfeeding, etc.

(3) Mothers' Support Groups

Mrs. Mahar Mardjono briefly outlined the progress of the mothers' support groups to-date in Indonesia. The La Leche League International model was revised to adapt better to local conditions (1979). Prior to Dr. Rulina's visit to San Diego, one mothers' support group was in existence, but mothers found visits to the meeting inconvenient because of logistics. Occasional requests for assistance on breastfeeding problems were made by telephone calls.

A new program to train 30 leaders is being developed in Jakarta (25 mothers and 5 midwives) who, after training, can establish mothers' support groups in their own areas. Both a pre-test and post-test will be administered to candidates. Mothers with a junior high school, and midwives with a senior high school, level of education will be chosen. The latter will receive a more intensive course and can act as supervisors. The course will include lectures from Dr. Rulina (e.g., anatomy, physiology of breast, group dynamics, breast care, management of breastfeeding, etc.). Teaching materials used will include a breast atlas provided by the Australian mothers' support group,

*An outline prepared by Dr. Rulina is given in Appendix L.

group, handouts of the "Womanly Art of Breastfeeding," translated into Bahasa Indonesia from La Leche League. Dr. Firman Lubis has proposed developing a support material package for literate mothers--also a newsletter, telephone service, and home visits when practical will be initiated. Contact with the Malaysian mothers' support group (PPPI) has already been made.

It is recommended that funds be sought for the development of a pilot project as indicated above with special relation to the role of trainees in clinics and maternity wards, including those in the many pushkesmas.

Based on this experience, a subsequent training project is intended for a rural area of Jogjakarta.

(4) Working Mothers

Because of conflicting schedules, it was not possible to meet with Dr. Lukas Hendrata, and information regarding working mothers was relayed to consultants by Dr. Paul Matulessy.

The need exists for finalization of meetings between a number of groups before a formal proposal can be presented to Mr. Ron Israel, INCS. The groups include representatives from the Ministry of Foreign Affairs, the Consumers Organization (YLK), Dr. Lukas Hendrata's Foundation (YIS), members of BK.PP-ASI, the Ministry of Social Affairs, and the Labor Association, among others.

(5) Practices of Formula Companies

It is readily evident that (as in most parts of the world) formula companies are deeply entrenched and that their influence on the public and particularly health professionals is very considerable.

The WHO/UNICEF Code of Marketing of Breastmilk Substitutes has been translated into Bahasa Indonesia, and an English language version is given in Appendix M.

A watered-down version with various loop-holes was reported to have been translated by Nestlé but has been superseded by the official version.

Interestingly, major international companies, notably Nestlé, are reported to be anxious to have the Code adopted. They are stated to have noted that some other companies, including local manufacturers, "take 'no notice' until it is a national regulation."

It is recommended that the official Code be expedited through channels in the Ministry of Health and the Food and Drug Administration and widely circulated through professional associations.

APPENDIX A

WORKSHOP ON BREASTFEEDING & SEMINAR ON PRENATALOGY 1984 WILL BE HELD :

In : Jakarta
12 - 13 July 1984
At : Gedung YAYASAN TENAGA KERJA INDONESIA
Jalan Gatot Subroto
Jakarta.

PROGRAMME SCHEDULE.

| DAY/DATE | HOURS | PROGRAMME | PRESENTANTS | MCDERATORS |
|----------------------------|--------------------------------------|--|--|--|
| Wednesday, 11 July 1984 | After 12 PM. | Out of Jakarta's Participants arrive & directly check in at Kartika Chandra Hotel. | | |
| Thursday, 12 July 1984 | 8 AM - 8.30 AM 8.30 AM - 9 AM | Registration Opening Ceremony : | 1. Chairman of Organizing Committee 2. Chairman of BK.PP-ASI 3. Chairman of PERINASTIA 4. Minister of Health Republic of Indonesia. | Organizing Committee |
| | 9 AM - 9.30 AM 9.30 AM - 10.30 AM | Coffee Break. <u>SCIENTIFIC SESSION I :</u> Panel Discussion : Handling The Preterm Infant 1. Preterm Infant Care in The Special Care Unit 2. Preterm Infant Care and Rooming-in | Dr. Martono Kadri Ms. Yenny Rustina | <u>Chairman :</u> Dr. Achmad Soerjono <u>Secretary:</u> Dr. Djauhariah Saifuddin. |

BEST AVAILABLE COPY

| DAY/DATE | HOURS | PROGRAMME | PRESENTANTS | MODERATORS |
|---------------------------|---------------------|--|--|---|
| Thursday, 12 July 1984 | 10.30 AM - 11.30 AM | <u>SCIENTIFIC SESSION II :</u> Panel Discussion : Prenatal Services 1. Data Survey in The Villages 2. Survey of Prenatal Services in the Type C Hospitals in Indonesia | Dr. Joedo Prihartono, MPH & Dr. Ratna Budiarso Dr. Gulardi H. Wiknjosastro | <u>Chairman :</u> Dr. Hariadi <u>Secretary:</u> Dr. Hidayat |
| | 11.30 AM - 12.30 PM | <u>SCIENTIFIC SESSION III :</u> Panel Discussion : Breastfeeding Management in The Hospitals 1. Prenatal Care, Hospital Management, Health Services 2. Rooming-in and Lactation Clinic 3. Breastfeeding Management | Dr. Sudibiyakti Dr. Emellia S. Dr. Audrey Naylor and Ms. Ruth Wester. | <u>Chairman :</u> Mr. Ig. Tarwotjo, M.Sc. <u>Secretary:</u> Dr. Titut Puspongoro |
| | 12.30 PM - 13.30 PM | Lunch Time. | | |
| | 13.30 PM - 15.00 PM | <u>SCIENTIFIC SESSION IV :</u> Panel Discussion : Influencing Factors of Breastfeeding 1. Family Health Care and Community Influences 2. Mothers' Support Groups 3. Breastfeeding Patterns in The Different Socio economic 4. Promotion and Marketing of Infant Formula, Ethic Code | Dr. Jelliffe Mrs. Mahar Mardjono & Mrs. Achmad Soerjono Dr. Inda Djelita Arief DR. Sukirman MPS, Ph.D. | <u>Chairman :</u> Prof. Dr. Moeljono T. <u>Secretary:</u> Dr. Yati Soenarto. |
| | 15 PM - 16 PM | <u>SCIENTIFIC SESSION V :</u> Panel Discussion : THALASSEMIA. 1. Thalassemia 2. Prenatal Diagnosis of Thalassemia | Prof. Dr. Iskandar Wahidayat. Dr. Bernadette Modell | <u>Chairman :</u> Prof. Dr. A.H. Markum <u>Secretary:</u> Dr. Muchlis Hasan. |

| DAY/DATE | HOURS | PROGRAMME | PRESENTANTS | MODERATORS. |
|-------------------------|------------------|---|---|---|
| Friday, 13 July 1984 | 8 AM - 9.30 AM | <u>SPECIFIC SESSION I :</u> " Presentation of BK.PP-ASI's Survey " 1. Attitude & Behaviour of Mothers about Breast-feeding 2. Knowledge & Attitude of Paramedic/Medical Professionals 3. Curriculum Review in Different Level of Schools (Curriculum Review in Different Level of Schools) 4. Curriculum and Training | Dr. Zein Sulaiman Dr. Rulina Suradi Dr. Soemilah Sastroamidjojo & Dr. Paul F. Matulesky. Mrs. Jelliffe | <u>Chairman :</u> Prof. Dr. W.A.F.J. Tumbelaka. <u>Secretary:</u> Dr. Suharyono. |
| | 9.30 AM - 10 AM | Coffee Break. | | |
| | 10 AM - 11.30 AM | <u>SPECIFIC SESSION II :</u> " Presentation of PERINASIA's Survey " | Branches Delegation of PERINASIA | <u>Chairman :</u> Dr. Hans E. Mcnintja. <u>Secretary:</u> Dr. Winahyo Hardjopra- koso. |
| | 11.30 AM - 14 PM | Lunch Time & Friday Prayer. | | |
| | 14 PM - 16 PM | <u>GROUP DISCUSSION :</u> 1. Education and Training 2. Management and Services 3. Reveral System 4. Monitoring and Reporting | <u>PERINASIA / BK.PP-ASI</u> Dr. A. Bari S./ Dr. Soemilah S. Dr. Sudradji S./dr. Suharyono Dr. Mariadi /dr. Rulina Suradi Prof. Sulaiman S./dr. Paul F.M. | <u>RESOURCE PERSON :</u> Dr. Jelliffe Mrs. Jelliffe Dr. Audrey Naylor Ms. Patricia Marin/ Ms. Ruth Wester. |
| | 16 PM - 17 PM | <u>PLENO SESSION :</u> " Recommendation " | Group Discussion's Reporter | <u>Chairman :</u> Prof. Sulaiman S <u>Secretary:</u> Dr. Azrul Azwar, MPH. |
| | 17 PM | Closing Ceremony. | | |

APPENDIX B

BREASTFEEDING: EDUCATION AND TRAINING OF HEALTH PROFESSIONALS

E.F.P. Jelliffe, MPH, FRSH

Since the 1978 Declaration of Alma Ata on Primary Health Care (1) and the subsequent adoption at the Thirty Fourth World Health Assembly of the International Code of Marketing of breast milk substitutes in 1981 (2) by the overwhelming majority of member states, progress has been made in the successful promotion of breastfeeding around the world. When national programs (Brazil, Indonesia, etc.) are considered, some specific messages emerge which enable health professionals at all levels to organize their activities in this important field.

These messages may be classified under three major headings:

1. Need for government commitment with some assistance from international agencies.
2. Training in breastfeeding of all health professionals which implies curriculum revision.
3. Changes in hospital services to permit application of new knowledge gained by health professionals.

These changes require support from:

1. Hospital administrators to implement rooming in for all mothers, to review the need for nurseries and milk banking systems for infants "at risk."
2. Health professionals, obstetricians, pediatricians, nurses, pri-

vate practitioners, primary health care workers (including indigenous midwives).

3. Communication strategies used both in training programs and to sensitize the community.

1. Government Support

This may be obtained only if the need for supporting a national breastfeeding program is endorsed by policy makers at the highest level. Nutrition advocates may employ different techniques such as the use of an audiovisual slide-tape produced jointly by the Brazilian Nutrition Institute (INAN) in collaboration with UNICEF followed by discussions with top Brazilian planners (3), or introducing breastfeeding within the national Maternal and Child Health program. It is important to be able to substantiate the benefits of breastfeeding with supporting evidence, e.g., cost effectiveness, mother-child bonding, reduction of disease among neonates, etc. Cost benefit, e.g., lesser occupancy of pediatric beds and expenditure on drugs for sick infants, monetary savings from unnecessary use of formula, better deployment nursing staff, etc.

Overwhelming support is required by a number of ministries collaborating on this project, e.g., health, education, social services, culture, religion, etc. Prior to changing curriculum design of health professionals baseline information on the breastfeeding situation at national level is required both among traditional sectors in rural areas and urban patterns. The percentage of working women should be ascertained if possible and existing legislation regarding both maternity and lactation benefits, if

such exist should be enforced. These will permit mothers to nurse their infants postpartum and continue doing so at work, after expiry of the maternity leave. Cultural practices which may be injurious to maternal or fetal status, e.g., food restrictions denying colostrum to the newborn, early introduction of semi-solids, etc., should be known as these must be considered when the training program is designed.

Training in Nutrition

In many countries very little training in this subject is included in the curriculum of physicians (e.g., 2 hours of biochemistry). These impressions have been confirmed by the International Union of Nutritional Sciences education and training surveys for health professionals in several continents (4-9). Some considerable training in nutrition may be found in some nursing programs, e.g., 60 hours but often this is out of date information, mainly theoretical with a glaring absence in breastfeeding instruction (10, 11). When rooming-in does not occur formula and pre-lacteal feeds are often routinely given.

Practical management techniques and in-service training apply to all health cadres who have been taught the scientific basis of lactation and the benefits of breastfeeding. Both types of instruction are complementary as if health professionals are unaware of the etiology of failure to initiate lactation they will be unable to prevent this and advise mothers on appropriate management techniques.

Lactation and training in breastfeeding management may be taught preferably in an integrated program, this will minimize overlap and repi-

35

titions will help synchronize the multifaceted and complex scientific data regarding the composition of breast milk. Practical work in a lactation clinic or in a rooming-in ward will permit health professionals to use newly acquired skills and become themselves breastfeeding counselors. The assistance of women's breastfeeding support groups provides a practical input into the program. Breastfeeding may also be given as a separate course of up to several weeks duration if possible, as long as instructors with scientific and practical knowledge are available. These types of courses of different duration and complexity are given nowadays in the US with emphasis on management, e.g., practical techniques. A diploma or certificate may be given when students have proven both their theoretical and practical knowledge in this field.

Integration of Breastfeeding into the Curriculum

There is a need in most countries for a review of curricula of different levels of health personnel. This can best be achieved if a suitable coordinator for the curriculum committee is available. The latter should be composed of a multidisciplinary group, preferably with senior student representation who can work harmoniously taking into account societal needs, number and types of health services as well as suitable available facilities. Teaching methodologies must be discussed as well as a choice made of appropriate texts dealing with the subject. This team must receive approval of their stated objectives and philosophy from the coordinator and teaching committee. When the subjects in lactation and breastfeeding have been approved a sequence of units (modules) (12) can be discussed. The disciplines involved in training must be carefully reviewed,

e.g., anatomy, physiology, neurology, biochemistry, nutrition, dietetics and other health professionals (e.g., obstetricians, pediatricians, internists, allergists, nurses, midwives, etc.) as well as education and communications specialists. All faculty may not be available because of shortage of manpower and funding, however, the use of visiting lecturers knowledgeable in the subject, e.g., university specialists, lactation consultants from women support groups and others, need to be included.

The evaluation of the training program should ideally be undertaken by an evaluation committee assisted by a consultant from the department of education and university staff as well as inputs from national and international agencies. The evaluation of the training program must be based on validity, reliability, objectivity and relevance. Training must be task-oriented ensuring that all students become efficient and capable lactation counselors. The cost of training medical students and nurses must be put to maximal use ensuring well-equipped maternal and child health workers with a specialty in breastfeeding. Training goals may have to be reevaluated if the results of the primary evaluation are not totally satisfactory.

Often integration must be done by stages and great diplomacy must be exerted by the curriculum coordinator so as not to offend his/her colleagues if irrelevant subjects in the curriculum need to be phased out or the number of hours reduced, as frequently a great overlap may be found among courses. The coordinator should work with his associates in order to reorganize materials to be taught so that together they may all pursue goals to improve child health, the quality of life of families and the

economy of the nation

Subjects which may be included in the modules or a course should include a number of topics. The following are suggested (12):

1. Nutritional requirements of mothers and young children
2. Diets of mothers in pregnancy and lactation, infants and toddlers
3. Breastfeeding: present scientific knowledge
4. Economics of breastfeeding
5. Cultural influences on breastfeeding
6. Community influences
7. Breastfeeding patterns
8. Management of breastfeeding (lactation kinesiology)
9. Special services in hospitals
10. Feeding under different situations
11. Pharmacokinetics (drugs in breast milk)
12. Bottle feeding (for mothers who do not or seem unable to breastfeed)
13. Government policies: legislation
14. Contraception and lactation
15. Groups to be educated at community level
16. Methodology of training
17. Evaluation of effects of training
18. Suggested research projects in breastfeeding

Breastfeeding Management

During this part of in-service training in breastfeeding, health professionals should learn from observation in rooming-in wards or lactation

38

clinics about specific problems which may occur among some mothers. These difficulties can be prevented at the onset with good management either prenatally or after delivery, e.g., inverted nipples, engorgement, blocked ducts, sore or cracked nipples, nipple confusion in infants fed both on the mother's breast and a rubber teat in bottle feeding, etc. Also the differences in appearance between a bottle and breastfed baby's stool, the need to instill confidence in the mother in her ability to breastfeed at birth and reassurance during the first week postpartum, "demand feeding" and the importance of frequency of feeds need to be addressed among other subjects. The availability of a "hotline" for parents to use manned by lactation counselors at the clinic ideally for 24-hour periods is an invaluable tool, as minor problems can be rectified when anxious parents phone the hospital.

Some lactation specialists divide breastfeeding management into six time periods (13), e.g. prepregnant, prenatal, birth to 14 days, 14 days to 4 months, 4 to 6 months and 6 months to 2 years of age. Instructions include maternal health care and nutrition, preparation of breasts and techniques of breastfeeding, nursing as soon as possible after delivery frequency of "on demand" feeding. The use of prelacteal or formula feeding is strongly contraindicated as is the use of pacifiers, rubber nipples placed in the infant's mouth. Care of nipples, positioning of the baby on the breast must also be included. Evaluation of mother-infant dyad is important prior to discharge as well as 5 to 7 days later and no free gift of formula should be given. The couple should be seen at monthly intervals. Semi-solids are recommended to be introduced between 4 to 6

months. Attention must also be given to mothers and babies "at risk", (e.g., premature babies, sick breastfed infants, sick mothers), and also the needs of working mothers must be taken into account. Professionals should after attending a practical training program be knowledgeable and able to deal with both maternal and infant problems should these arise.

Communications Strategies

Information and dissemination of knowledge. Use of appropriate media. The use of mass media used both in the training of health professionals and education of the lay public has increased greatly in a number of countries. Traditional methods of communications have included face to face education in hospital and clinics reaching a small audience. Methodologies have included national posters, or some imported from abroad or obtained as gifts from the milk companies bearing their logo, thus advertising their products.

Flip charts, photonovellas, slide shows, short films and some games may also be used, but none of these is as effective as watching a mother breastfeed (14).

Short talks are frequently given to mothers emphasizing the desirability of breastfeeding, but rarely do they address the mothers' deep-seated anxieties (lack of support from husband, loss of attractiveness, difficulties in breastfeeding, lack of milk, quality of milk, pressures at work, etc.). If a lactation clinic is available manned by trained lactation counselors reassurance and practical advice on a one-to-one basis can be successfully undertaken.

The "target" audiences for training have already been mentioned,

health professionals and allied cadres, but also participating agencies who assist and collaborate in breastfeeding programs should be included. Internal effective communication between these groups must exist. Manoff (15) has described coordination between health professions as the "inside job" whilst the "outside job" refers to the task of communicating breastfeeding knowledge to the public.

Teaching Aids and Mass Media

Textbooks on lactation and breastfeeding which deal in depth with a wide number of issues have now been translated into several languages and should be available for the use by students. Equally a large amount of data exist in the medical literature. A variety of national or international newsletters provide appropriate information for health cadres, e.g., Mothers and Children, Salubritas (American Public Health Association). The use of a regular newsletter which would incorporate at national level information on the successful implementation of breastfeeding by different groups in the country should be available in medical and nursing libraries and could help sustain enthusiasm and ingenuity of all health professionals in the promotion of breastfeeding. Communication strategies using a mass media campaign should not be undertaken until all health professionals speaking with one voice are able to transmit accurate information on the subject acquired during training, retraining or through refresher courses. Dissonance will ensue if harmony in message delivery is lacking.

It has now been realized that in any nutrition education program the role of mass media includes not only teaching, education, imparting needed information as well as promoting awareness of the public and a national con-

sciousness towards, in this instance, breastfeeding. The use of media using carefully selected messages for the target groups envisaged (e.g., middle income mothers, women living in slums, etc.) should create a public demand not only for information but for the availability of needed interventions, e.g., rooming-in, lactation clinics with counseling, availability of breast milk for premature infants or sick babies, legislation for working women, etc. A telephone number which can be reached from different sectors in a city or small town should be made available via the media of television, radio, newspapers. The use of television or radio spots, films, daytime shows, soap operas will reach a wide audience, for example the number of "impacts" (messages times estimated audiences) during a 10-month period in the joint cities of Sao Paulo and Recife in Brazil which reached all socio-economic groups was over half a billion (3).

The success of the Brazilian program has been greatly helped by the free contribution in talent, time and money by the advertising agency CBBA and the TV channel Globo. Thirty second television spots have addressed the anxieties of both mothers and fathers of babies being breastfed using role models such as well known actresses, poets, singers, athletes, physicians, etc. Other imaginative use of media have included photographic competitions depicting breastfeeding women, articles in magazines and newspapers, a weekly column entitled "Breastfeeding: clear up your doubts" in the Family Journal, street "verses" which are social commentaries, and include the benefits of breastfeeding, strip cartoons promotion tie-ins, etc., as well as posters. Other countries have also used poster competitions, records with catchy tunes extolling breastfeeding, postage stamps

42

among other promotional materials. However, it is important when developing a mass media strategy that the message be carefully pretested, shown at prime time with full cooperation of the government communications network and assistance if possible from advertising agencies who wish to assist in developmental program.

A link must be made between such social marketing of breastfeeding with the training of health professionals. Advice given to mothers by the latter must complement and support the media messages and vice versa. The role of health professionals as lactation counselors must be promoted through the media. Such visible support of their efforts should encourage educators to devote their attention to the inclusion of the subjects of lactation in breastfeeding in curricula, a long neglected subject. Physicians and nurses will appreciate their role in this area and hopefully be enthusiastic and well-informed leaders in this rediscovered and ever expanding field.

13. Jelliffe, D.B., Jelliffe, E.F.P. and Naylor, A.J. Travelling Seminar on Maternal and Infant Nutrition for Indonesian Health Professionals, Indonesia. Consultant Report Series. International Communication Services (EDC) 1982.
14. Jelliffe, E.F.P. Nutrition Education and the Planning Process. Chapter 6, 103. In: Nutrition in the Community. Editor McLaren, D.S. J. Wiley & Sons Ltd. 1983.
15. Manoff, R.K. An Assessment of the Communication Component of the Brazilian National Breastfeeding Program. Consultant Report Series International Communications Services (EDC) 1982.

REFERENCES

1. WHO/UNICEF. Primary Health Care. Alma Ata, WHO, Geneva.
2. WHO. International Code of Marketing of Breastmilk Substitutes, Geneva, 1981.
3. Jelliffe, D.B. and Jelliffe, E.F.P. A Follow-up Visit to Assess the Progress of the National Breastfeeding Promotion Program, Brazil Consultant Report Series. International Communications Services (EDC) 1983.
4. Valyasevi, A. Nutrition Education for Medical and Other Health Science Professions in Asia (IV). In: Wld. Rev. Nutr. Diet. 38, 174. Editor. Bourne, G.H., S. Karger, Basel. 1981.
5. Maletlema, T.N. and Sarakikya, E. The Tanzanian Experience (VI). In: Wld. Rev. Nutr. Diet. 38, 187. Editor Bourne, G.H., S. Karger. Basel, 1981.
6. Cremer, H.D. Nutrition Training in Medicine, Dentistry, and Pharmacy in European Countries (VIII). In: Wld. Rev. Nutr. Diet. 38, 198. Editor. Bourne, G.H., S. Karger. Basel. 1981.
7. Morava, E. and Tarjan, R. Nutritional Education for Medical and Other Health Science Professionals in Eastern Europe. (IX) In: Wld. Rev. Nutr. Diet. 38, 203, Editor: Bourne, G.H., S Karger. Basel. 1981.
8. Krehl, W.A. Nutrition Education for Health Professionals in the USA. In: Wld. Rev. Nutr. Diet. 38, 205. Editor: Bourne, G.H., S. Karger, 1981.
9. Souza, N., Vanucchi, H., and Dutra de Oliveira, J.E. The Teaching of Nutrition in Brazilian Medical Schools (XIII). In: Wld. Rev. Nutr. Diet. 38, 215. Editor: Bourne, G.H., S. Karger. Basel. 1981.
10. Jelliffe, E.F.P. Nutrition Education and Teaching in Nursing Schools (II). In: Wld. Rev. Nutr. Diet. 38, 156. Editor. Bourne, G.H., S. Karger. Basel. 1981.
11. Jelliffe, E.F.P. Editor: The Teaching of Nutrition in Schools of Nurse Auxiliaries. An International Review of Programmes. Report of Committee v/11 (Education of Nurses and Auxiliary Health Workers) 1981.
12. Jelliffe, E.F.P. Breastfeeding Module for Integration into the Curriculum of Health Professionals. J. Trop Pediat. 30(5), 1984.

Materi Mengenai Gizi Yang Diberikan
Pada Mahasiswa Akademi Perawatan

APPENDIX C. Nutrition Content in Nursing Academies.

HOURS GIVEN

| Bidang Studi | Pokok Bahasan <i>MAIN TOPICS</i> | Jam Pertemuan | | |
|---|---|---------------|----|----|
| | | T | P | PL |
| Anatomi & Fisiologi (<i>Sm I</i>) | Sistem Pencernaan. | 6 | - | - |
| Biokimia (<i>Sm I</i>) | Metabolisme karbohidrat, protein dan lemak. | 4 | - | - |
| | Pembentukan tenaga melalui proses biokimia. | 4 | - | - |
| | Pengaruh vitamin, enzim dan hormon. | 4 | - | - |
| | Gangguan akibat kekurangan vitamin, enzim dan hormon. | 8 | - | - |
| Ilmu Gizi (<i>Sm I</i>) | Pengertian Gizi. | 2 | - | - |
| | Zat-zat makanan yang dibutuhkan. | 10 | - | - |
| | Memilih, mengolah dan menyajikan makanan. | 6 | - | - |
| | Pengantar Penyuluhan Gizi. | 2 | - | - |
| Ilmu Diet (<i>Sm IV</i>) | Pengertian dan prinsip-prinsip diet. | 4 | 16 | - |
| | Diet bagi berbagai gangguan/penyakit. | 8 | 16 | 24 |
| | Kebutuhan gizi wanita hamil, masa nifas/menyusui. | 2 | 4 | 8 |
| Perawatan Kebidanan & Keluarga Berencana. (<i>Sm V</i>) | Manfaat Asi, Breast/bottle feeding. | 2 | 2 | 4 |
| | Perawatan buah dada. | 2 | 2 | 4 |
| | Makanan tambahan bayi. | 2 | - | - |
| Jumlah : | | 66 | 40 | 40 |

Keterangan : T : Teori (*THEORY*)

P : Penugasan (*PRACTICAL*)

PL : Praktek Lapangan (*FIELD WORK*)

46

Materi mengenai Gizi Yang Diberikan
Pada Siswa Sekolah Perawat Kesehatan
(S P K)

APPENDIX D. Nutrition Content in Nursing Schools

| Bidang Studi | MAIN TOPICS Pokok Bahasan | Jam Pertemuan | | |
|---|--|---------------|----|----|
| | | T | P | PL |
| Anatomi & Fisiologi (<i>Sem II</i>) | Anatomi & Fisiologi alat Pencernaan. | 2 | 2 | - |
| Perawatan II-B (<i>Sem III</i>) | Cara memilih, mengolah dan menyajikan makanan. | 2 | 2 | 4 |
| Perawatan I-B (<i>Sem III</i>) | Kebutuhan zat-zat makanan bagi kesehatan. | 4 | 4 | 4 |
| | Memberi makan pasien : | 2 | 2 | 6 |
| | - Menyiapkan dan memberi makanan. | | | |
| | - Membantu pasien yang tidak dapat makan sendiri. | | | |
| Perawatan Keluarga (<i>Sem IV</i>) (<i>Semester IV</i>) | Makanan bagi Ibu hamil, masa nifas dan menyusui. | 4 | 2 | 6 |
| | Makanan bayi : | 8 | 4 | 10 |
| | - Menyiapkan susu buatan. | | | |
| | - Menyiapkan dan memberikan makanan tambahan. | | | |
| | - Manfaat ASI | | | |
| | - Menyiapkan Ibu untuk menyusukan. | | | |
| | - Menyiapkan dan mengirim bayi untuk disusukan. | | | |
| | - Perawatan buah dada. | | | |
| Perawatan II-B (<i>Sem III</i>) | Makanan anak-anak dalam masa pertumbuhan. | 2 | 2 | 2 |
| | Prinsip-prinsip diet, diet bagi penyakit-penyakit tertentu. | 6 | 4 | 6 |
| Perawatan V-A (<i>Sem V</i>) | Penyakit-penyakit yang disebabkan karena gizi salah. | 6 | 6 | 4 |
| <i>Total Sem VI</i> | | Jumlah : 36 | 28 | 42 |

Keterangan : T : Teori

P : Penugasan

PL : Praktek Lapangan

BEST AVAILABLE COPY

47

APPENDIX E. Review of Possible Integration of Breastfeeding
Modules into Medical School Curricula

USUL : INTEGRASI BREASTFEEDING MODULE KE DALAM KURIKULUM INTI FAKULTAS KEDOKTERAN
TAHUN 1982

| Breastfeeding modules for integration into the curriculum of Health Professionals | | Mata Pelajaran (M.P.) Cabang Ilmu | | | |
|--|---|-------------------------------------|--|---------------------|-----------------|
| | | G i z i | | Ilmu Kesehatan Anak | Obstetri&Gineko |
| 1. | Nutritional Requirements of Mothers and Young Children | | | | |
| - | Maternal nutrition in pregnancy and lac- tation | 7. | - Kebutuhan zat Gizi | | |
| - | Nutritional needs infants and toddlers | 9. | - Golongan Rentan : | | |
| - | Recommended Dietary Allowances (R.D.A.) | | A. Neonatus & Bayi | | |
| - | Estimation of nutritional status : Mater- nal weight gain in pregnancy | | B. Balita | | |
| - | Growth patterns infants | | C. Wanita Hamil dan Menyusui. | | |
| 2. | Diet of mothers, infants and toddlers : | | | + | |
| - | Mothers | | | | |
| * - | Menu Planning | 8. | - Menyusun Menu | | |
| * - | Food | 9. | - Ilmu Bahan Makanan (* ASI dimasukkan mata pelajaran ini) | + | |
| - | Infants and Toddlers | | | | |
| 3. | Breastfeeding : Present Scientific Know- ledge. | | | | |
| - | Anatomy & Physiology of breast function as a nurturing organ | | | + | + |
| - | Psycho Physiology of Lactation reflexes | | | + | + |
| - | Recent Knowledge | 9. | - Ilmu Bahan Makanan (* ASI dimasukkan dalam mata pelajaran ini) | + | + |
| 4. | Economics of Breastfeeding at family and National level | 12. | - Penyakit Defisiensi yang lazim di Indonesia A. P.E.M. | + | + |
| 5. | Cultural influences on breastfeeding | 20. | - Penilaian Keadaan Gizi Masyarakat | + | + |
| 6. | Community influences | 20. | - Penilaian Keadaan Gizi Masyarakat | + | + |

52

| Breastfeeding modules for integration into the curriculum of Health Professionals | | Mata Pelajaran (M.P.) Cabang Ilmu | | |
|---|---|-------------------------------------|---|--|
| | | | G i z i | Ilmu Kesehatan Anak Obstetri & Ginekologi |
| 7. | Breastfeeding Patterns | | _____ | _____ + _____ |
| 8. | Management of Breastfeeding (Lactation Kinesiology) | | _____ | _____ + _____ |
| 9. | Special Services in Hospitals | | _____ | _____ + _____ |
| 10. | Breastfeeding under different situation | | _____ | _____ + _____ |
| - | Women "at risk", Sick Mothers, Working Women | | _____ | _____ + _____ |
| - | Infants "At risk", Premature Babies Sick Infants | | _____ | _____ + _____ |
| 11. | Pharmakokinetics | | _____ | _____ + _____ |
| 12. | Bottle Feeding | | _____ | _____ + _____ |
| 13. | Government Policies : Legislation | 26. | - Kebijakan Pangan Nasional (* W.H.O. UNICEF code of marketing of breastmilk substitutes dimasukkan dalam mata pelajaran ini) | _____ + _____ |
| 14. | Contraception and Lactation | | _____ | _____ + _____ |
| 16. | Methodology of Training | 24. | - Pendidikan (Gizi) | _____ + _____ |

* Catatan :

Belum ada dalam Module/Mata Pelajaran Cabang Ilmu.

49

APPENDIX F. INTERNATIONAL FERTILITY RESEARCH FORM

| | | | |
|--|--|--|--|
| PATIENT IDENTIFICATION: 1. Hospital or clinic no. _____ | | 2. Admission date _____ day month year | |
| 3. Patient's name _____ family first maiden | | Husband's name _____ | |
| 4. Address _____ | | | |

| | | | |
|---|--|--|----|
| STUDY IDENTIFICATION | | 36. Anesthetic administered: 0) none or psychoprophylaxis only 1) analgesic systemic or inhalation 2) local 3) perineural/pudendal 4) spinal/epidural 5) general 6) 1 and 2 or 1 and 3 7) other combination 8) other _____ | |
| 5. Center name _____ and number: _____ | 6. Study number: _____ | 37. Prolapsed cord: 0) none 1) molding 2) molding with extension 3) molding with hematoma 4) molding aural 5) molding with extension 6) mediolateral with hematoma 8) other _____ | 52 |
| 7. Patient order number: _____ | 8. Delivery date: _____ day month year | 38. Type of delivery: 0) spontaneous 1) outlet forceps 2) vacuum extractor 3) mid- or high forceps 4) manual rotation 5) breech extraction 6) cesarean section 7) destructive procedure 8) other _____ | 53 |
| 9. Registration status: 0) not booked 1) booked, patient's choice 2) referred by physician 3) referred by midwife 4) emergency 8) other _____ | | 39. Primary injury during labor and/or delivery: 0) none 1) vulva 2) vagina 3) perineum 4) cervix 5) uterus 6) rectum 7) bladder 8) other _____ | 54 |

| | | | |
|--|--|---|----|
| PATIENT CHARACTERISTICS | | 40. Primary complication of labor and/or delivery: 0) none 1) prolonged/obstructed labor 2) placenta previa 3) placenta abruptio 4) hypotonic uterine contractions 5) hypertonic uterine contractions 6) hemorrhage 7) retained products 8) other _____ | |
| 10. Residence: 1) urban 2) rural 3) urban slum 4) rural slum _____ | 11. Patient's status: 1) private 2) not private 8) other _____ | 41. Secondary complication of labor and/or delivery: 0) none 1) prolonged labor 2) cord prolapse 3) hypotonic uterine contractions 4) hypertonic uterine contractions 5) hemorrhage 7) retained products 8) other _____ | 55 |
| 12. Patient's age: (completed years) _____ | 13. Patient's education: (school year completed) 0) 0 1) 1-2 2) 3-4 3) 5-6 4) 7-8 5) 9-10 6) 11-12 7) 13-14 8) 15+ _____ | 42. Duration of labor: (in completed hours) 0) none 1) <2 2) 2-6 3) 7-12 4) 13-18 5) 19-24 6) 25-48 7) over 48 _____ | 56 |
| 14. Marital status: 1) never married 2) currently married 3) divorced 4) separated 5) widowed 6) consensual union 8) other _____ | 15. Age at first marriage/union: (completed years) _____ | 43. Attendant at delivery: 0) none 1) nurse 2) qualified midwife 3) student nurse/midwife 4) paramedic 5) medical student 6) general physician 7) OB/GYN physician 8) other _____ | 57 |

| | | | |
|---|--|--|----|
| GESTETRIC HISTORY (not including this pregnancy) | | 44. Birth weight: (gm; 9988 or more = 9988) _____ | |
| 16. Total live births: _____ | 17. Children now living: _____ number of males (8 or more = 8) _____ number of females _____ | 45. Sex of infant(s) born at this delivery: _____ number of males (write number of each) _____ number of females _____ | 58 |
| 18. Duration of breast-feeding of last live birth (in months) 0) did not breast-feed 1) <3 2) <6 3) <9 4) <12 5) <15 6) <18 7) <21 8) ≥21 _____ | 19. Number of stillbirths: (8 or more = 8) _____ | 46. Apgar score: 0) not done at 1 minute (8 or more = 8) at 5 minutes _____ | 59 |
| 20. Number of infant deaths: (less than 12 completed months; 8 or more = 8) _____ | 21. Number of spontaneous abortions: (8 or more = 8) _____ | For items 47-48, use the following codes: 0) normal or stillbirth with no apparent pathology 1) fetal distress during labor 2) minor malformation 3) major malformation 4) respiratory distress syndrome 5) ischemia/necrosis 6) neonatal sepsis 7) trauma 8) other (for codes 2, 3, 7 and 8, specify) | |
| 22. Number of induced abortions: (8 or more = 8) _____ | 23. Outcome of last pregnancy: 0) not previously pregnant 1) live birth, full term, still living 2) live birth, full term, deceased 3) live birth, premature, still living 4) live birth, premature, deceased 5) stillbirth 6) induced abortion 7) spontaneous abortion 8) other _____ | 47. Primary fetal/neonatal condition, specify _____ | 60 |
| 24. Number of months since last pregnancy ended: (96 or more = 96) _____ | 25. Contraceptive method mainly used before conception: 0) none 1) IUD 2) oral/injectables 3) female sterilization 4) male sterilization 5) condom 6) withdrawal/rhythm 7) foam/diaphragm/jelly 8) other _____ | 48. Secondary fetal/neonatal condition, specify _____ | 61 |

| | | | |
|--|--|---|----|
| MEDICAL DATA | | 49. Death of fetus/newborn: 0) none 1) antepartum, one 2) antepartum, two or more 3) intrapartum, one 4) intrapartum, two or more 5) postpartum, one 6) postpartum, two or more 7) combination 8) other _____ | |
| 26. Number of antenatal visits: (8 or more = 8) _____ | 27. Primary antenatal condition: (see code list) _____ | 50. Primary puerperal condition: 0) normal 1) fever requiring treatment 2) bleeding requiring treatment 3) urinary tract infection 4) mastitis 5) phlebitis 6) dehiscence 7) death (complete Death Record) 8) other _____ | 62 |
| 28. Hospitalization required during this pregnancy: 0) no 1) yes, for condition indicated in item 27 2) yes, for condition other than the one indicated in item 27, specify condition _____ | 29. Tobacco smoking during pregnancy: 0) none During part of pregnancy (cigarettes/day): 1) 1-10 2) 11-20 3) 21 or more Throughout pregnancy (cigarettes/day): 4) 1-10 5) 11-20 6) 21 or more 8) cigars, pipes, etc. _____ | 51. Maternal blood transfusion during hospitalization: 0) none 1) yes, before delivery 2) yes, during delivery 3) yes, after delivery 4) 1 and 2 5) 1 and 3 6) 2 and 3 7) 1, 2 and 3 _____ | 63 |
| 30. Number of previous cesarean sections: _____ | 31. Estimated duration of pregnancy: (menstrual age in completed weeks) _____ | 52. Number of nights hospitalized this admission before delivery: (8 or more = 8) _____ | 64 |
| 32. Hemoglobin at admission for delivery (to nearest gm): 1) ≤5 gm 2) 6 gm 3) 7 gm 4) 8 gm 5) 9 gm 6) 10 gm 7) 11 gm 8) ≥12 gm 9) not done _____ | 33. Rupture of membranes: Spontaneous: 1) <24 hrs before delivery 2) ≥24 hrs before delivery Artificial: 3) <24 hours before delivery 4) ≥24 hrs before delivery 5) during cesarean section _____ | SPECIAL STUDIES | |
| 34. Type of labor: 0) no labor 1) spontaneous 2) spontaneous, augmented with artificial rupture of membranes (ARM) 3) spontaneous, augmented with drugs 4) spontaneous, augmented with ARM and drugs 5) induced, with ARM 6) induced, with drugs 7) induced, with ARM and drugs 8) other _____ | | 53. _____ | 65 |
| For multiple births, code information for the most difficult delivery in items 35, 38, 44, 46, 47 and 48 and complete a separate Multiple Birth Record for each infant. | | 54. _____ | 66 |
| 35. Type of presentation during labor: 0) vertex, occiput anterior 1) vertex, occiput transverse or posterior 2) frank breech 3) footling breech 4) compound breech 5) other (specify) _____ | 36. Number of nights hospitalized this admission after delivery: (8 or more = 8) _____ | 55. _____ | 67 |
| | 37. Female sterilization: 0) none 1) before this delivery 2) at cesarean section 3) immediately after delivery 4) same day 5) 1-2 days later 6) 3-4 days later 7) 5-9 days later 8) 10 or more days later _____ | Complete these items at time of discharge: | |
| | 38. Number of additional children wanted: (9 or more = 8) _____ | 36. Number of nights hospitalized this admission after delivery: (8 or more = 8) _____ | |
| | 39. Contraceptive method planned or provided: 0) none 1) IUD 2) oral/injectables 3) female sterilization 4) male sterilization 5) condom 6) withdrawal/rhythm 7) foam/diaphragm/jelly 8) other _____ | 37. Female sterilization: 0) none 1) before this delivery 2) at cesarean section 3) immediately after delivery 4) same day 5) 1-2 days later 6) 3-4 days later 7) 5-9 days later 8) 10 or more days later _____ | |
| | | 38. Number of additional children wanted: (9 or more = 8) _____ | |
| | | 39. Contraceptive method planned or provided: 0) none 1) IUD 2) oral/injectables 3) female sterilization 4) male sterilization 5) condom 6) withdrawal/rhythm 7) foam/diaphragm/jelly 8) other _____ | |

Breast-Feeding, Birth Spacing and Pregnancy Care: Prevalence and Outcome

by Roger P. Bernard,* MD, MSPM (Director of Field Epidemiology) and Sulaiman Sastrawinata,** MD | PENFIN Chairman and IFFH Executive Secretary)

* International Federation for Family Health and International Association for Maternal and Neonatal Health, Field Epidemiology and Liaison Office, 22 Aven. Riant-Parc, 1209 Geneva, Switzerland

** Coordinating Board of Indonesian Fertility Research and International Federation for Family Health, Secretariat, BKS PENFIN, Hasan Sadikin Hospital, Bandung, Indonesia

Obstetricians in developing countries are to play an increasing role in the promotion of knowledge, attitude and practices regarding factors that favorably affect the people's reproductive health.^{1,2} A still young research tool—*Maternity Care Monitoring (MCM)*^{3,4}—provides currently new insights into factors affecting the prevalence of (1) breast-feeding, (2) pregnancy spacing, and (3) pregnancy care. Actually, this 'protective triad' adds up to the single most important 'preventive input' a birth attendant can make for the nation's development. It addresses the problems associated with reproduction.

The MCM project in Indonesian university level obstetrics⁵ affords the opportunity to analyse the protective triad of breast-feeding (BF), family planning (FP) and antenatal care (AV) as prevalent among parturients from 1978 to 1980 in the 12 university departments of obstetrics and gynecology, viz., Jakarta, Bandung, Yogyakarta, Semarang, Surabaya, Malang, Denpasar, Medan, Padang, Palembang, Ujung Pandang, and Manado. This report provides 'pictorial access' to selected findings from this experimental monitoring scheme with a focus on both the prevalence of the preventive triad and outcomes in terms of the duration of the last birth interval and the risk of perinatal death as functions of selected input variables.

Materials and Methods

The same data set and the same technique of three dimensional (3D) display of findings is used as in previous analyses.^{6,7,8,9,10} The 11-university center pool comprises 36 802 mothers with singleton birth admitted from autumn 1978 to summer 1980. Unrestricted and restricted standard computer outputs (SCO's) of this MCM program are the sole source for this analysis.

In order to provide both detail documentation and overview access, two-way tables are 'lifted into the third dimension' (3D). The basic concept underlying the 3D display technique is the creation of reference documentation by time, place, person and system whereby the 'data exhibit' should speak for itself. The latter intention is facilitated by connecting with various designs of dotted lines the elevated indices and inscribing such information as relative prevalence, relative risk, relative length in months, etc. Each bivariate specificity for which an index is given in 3D display carries the cell size and the index (proportion, rate or mean months). The usual row and column totals as well as the grand total are given as a 'roof' above the bivariate control 3D display. Aside from this needed information to complete the two-way statistical table, the roof provides additional depth to

the graphic 3D display executed on isometric paper. The roof also provides opportunity to give summary relative prevalences, summary relative risks, etc. Finally, the statistically documented 3D display highlights interesting patterns that may lead to hypotheses and appropriate statistical tests may be applied by the interested reader.

In this analysis, 7 items were selected from the maternity record,¹ namely maternal education, maternal age, breast-feeding of the previous live birth, contraceptive method mainly used before the current conception, number of antenatal visits, number of months since last pregnancy ended, and death of fetus/newborn. These variables are arranged across the top of Table 1. An incisive strategy of analysis is then developed—facilitated by introducing two signs: the square stands for 'control' and the dot for 'index'. Linkage of two squares signifies 'bivariate control'. The shift from index to control for a given variable amounts to giving first its relative frequency and then to study its effect on another variable. The current pathway of analysis gives first the prevalences of the three variables of preventive input (BF, FP, and AV) as controlled for maternal education and age (line items 1, 2, 4.1), then selected outcomes are calculated by controlling for selected pairs of preventive input variables. One important outcome is the length of the birth interval as a function of breast-feeding and family planning (line item 3), another is the risk of (hospital) perinatal death as a function of family planning and antenatal visits (line item 4.2). The current strategy is part of a process of inquiry and feedback that unfolds, module after module, the empirical facts as recorded by the aggregate profession of obstetrics at a given level of reproductive health care provision.

Findings

Breast-feeding (BF)

Figure 1 displays the proportion of women with 12 or more months breast-feeding of the previous live born infant by both education and age of the mother. Overall (top cell), 33.2 per cent mothers had breast-fed their infant 12+ months, as compared with 54.9 per cent for women of very low education in their early thirties (0-2; 30-34) against only 18.2 per cent for women with high education in their early twenties (11+; 20-24). At all ages 'long breast-feeding' (12+ months) decreases markedly with formal education (education effect), and for the four classes of education long breast-feeding decreases for the younger age cohorts (age cohort effect). This marked decrease in breast-feeding with both (1) formal education and (2) incoming age cohorts indicates the operation of a

secular trend which disfavors prolonged breast-feeding amongst educated women.

Family planning (FP)

Figure 2 gives, again by both education and age of the mother, the proportion of women with some family planning practice shortly before the current conception. Overall (top cell), 15.9 per cent current mothers had practiced family planning, as compared with 34.7 per cent mothers with high education and being in their early thirties (11+; 30-34) against only 2.9 per cent for mothers with very low education in their early twenties (0-2; 20-24). At all ages family planning practice increases with formal education (education effect), but a more marked increase in family planning practice is documented with increasing maternal age within the four classes of education (maternal age effect). In great part, this marked age effect stands most likely for the known parity effect on family planning practice. The notable preponderance of the age effect over the education effect indicates the decision to practice family planning to be more dependent on age/(parity) than on formal education. Easy access to methods may help to increase their use.¹¹

Birth interval (BI)

Figure 3 is an 'outcome display' by giving the mean duration of the last (closed) birth interval by both duration of breast-feeding of the previous live birth type of contraceptive method mainly used before the current conception. Overall (top cell), the mean duration was 31.8 months, as compared with 23.5 months for women with short breast-feeding (1-5 months) and no contraception (NOFP) against 44.8 months for women with 6-11 months breast-feeding and use of the intrauterine device—a difference in length of birth interval of 21.3 months! Among non-contraceptors, prolonged breast-feeding (12+ months) is associated with a birth interval of 34.8 months—an increase by 11.3 months over that for women with short breast-feeding (1-5 months). By contrast, among women with 6-11 months breast-feeding and no contraception, the increase in birth interval duration is only 4.5 months over that for short breast-feeding, but it increases by 7.3 months with condom use, by 13.0 months with pill use, and by 16.8 months with IUD use. As tallied in Fig. 3 (EPINOTE), and following the 'dotted line bivariate gradient of birth interval duration', three quarters of the birth interval elongation among women with less than one year breast-feeding is to be ascribed to pill use ($13.0/17.5 = 0.64$) as compared with the remaining quarter being ascribed to breast-feeding proper ($4.5/17.5 = 0.26$). Finally, the absolute elongation of the birth interval as a consequence of pill use is 13.0 months among women with either 6-11 months breast-feeding or only 1-5 months breast-feeding, suggesting an independent contraceptive effect on birth interval elongation for this range of breast-feeding duration.

Lack of pregnancy care (NOAV)

Figure 4.1 gives the proportion of women with no antenatal visits during the current pregnancy by both education and age of the mother. Overall (top cell), 49.7 per cent current mothers showed a total lack of pregnancy care with a much greater variation across education (2.19 fold) than across maternal age (1.36 fold). For women in their early thirties (30-34 years),

the prevalence of total lack of pregnancy care is highest for no education (76.1 per cent) and lowest for 13+ years education (31.9 per cent)—a prevalence ratio of 2.39. For women with 0, 1-6 and 7-12 years education, the prevalence of lack of pregnancy care across maternal age forms a V-shaped pattern, with the lowest values being associated with the central age group of 25-29 years, and the peak values being associated with teenage deliveries. Small cell sizes at both age extremes among women with 13+ years education precludes meaningful interpretation of the apparently reversed prevalence pattern of NOAV. The very strong influence of education on antenatal visits and the V-shaped pattern across maternal age are the two major messages in Fig. 4.1. They imply that previous observations summarized as 'ED effect on perinatal death and its components' and 'V-shaped or J-shaped, or reverse J-shaped AGE effects on perinatal death and its components' may be fraught with a confounding quality, at least in part, since prenatal care is associated with both education and maternal age. Let us then check the effect of pregnancy care.

Risk of perinatal death (PD)

Figure 4.2 gives the risk of (hospital) perinatal death by both types of contraceptive method mainly used before the current conception and antenatal visits. Overall (top cell), the rate of (hospital) perinatal death is 76.2/1000 singleton birth infants with a nine-fold variation across antenatal visits and a multifold less important variation across contraceptive use. With increasing number of antenatal visits, the risk of perinatal death ranges from 126.9/1000 for total lack of pregnancy care, to 51.9/1000 for 1-3 prenatal visits, to 19.7/1000 for 4-6 prenatal visits, to 14.2/1000 for 7+ antenatal visits (right slope of roof). Steep gradients persist across antenatal visits within the four selected categories of family planning practice (NOFP, condom, pills, IUD). Hence nothing speaks against the emerging hypothesis that education is to a considerable extent a confounding variable, with prenatal visits contributing mainly to the reduction of morbidity and mortality generally ascribed to education in statistics of reproductive health in developing countries. An important threshold of antenatal visits appears to be four visits, since 4+ visits are associated with risks of perinatal death below 20/1000, against risks above 50/1000 being associated with less than four antenatal visits.

Discussion

The programmed analysis (Diagram 1) of Indonesian MCM data and the control for education and age of the prevalences of (1) long breast-feeding, (2) family planning practice, and (3) lack of pregnancy care showed an important secular decrease in breast-feeding, a marked increase in family planning practice with maternal age/(parity) quite independent of education, and a sharp decrease in lack of pregnancy care with maternal education quite independent of maternal age. Formal education emerges thus as an epidemiological pace maker of the secular decrease in breast-feeding and increase in pregnancy care; while family planning practice is in stronger linkage with fertility attainment (age/(parity)) than education. The implications for health programmes are that (1) active promotion of breast-feeding may inhibit the secular trend, (2) family planning information be made widely available both postpartum and to young

couples, and (3) promotion of pregnancy care go together with promotion of breast-feeding and family planning. In essence, the 'preventive input triad' (BF/FP/AV) is interactive (and thus potentiating) in terms of information, motivation and provision of services. The three dual control prevalence tables (Figs 1, 2, 4.1) may be considered as a first 'MCH protection baseline' against which progress may be assessed at regular intervals.

Two measures of outcome were given: duration of birth interval and risk of perinatal death. The most common duration of breast-feeding was 6 to 11 months. Hence, the additional elongation of the birth interval by various methods of contraception is important. The salient observation is that pill use increased the birth interval by 13.0 months, from 28.0 to 41.0 months. But only 14.4 per cent (1513/10 492) of the women who breast-fed for 6–11 months had used oral contraception as compared with 6.2 per cent (654/10 492) having used the IUD with an associated increase of 16.8 months, from 28.0 to 44.8 months. Obviously, these two modern methods of family planning appear demographically effective and may thus be promoted for spacing. The current figures may serve as reference points for later progress. In a like manner, the monitoring scheme may be applied in more peripheral units by using simplified monitoring schemes with registers.¹² Comparison of contraceptive use during the last birth interval may open a new avenue to routine evaluation of both user prevalence and demographic effectiveness.

The observed strong pregnancy care effect on the risk of perinatal death for the four groups of family planning practice is important since it strengthens the previous conclusions derived from the same data set.^{6,7} Overall, the following patterns emerge:

1. education promotes vigorously both contraception and antenatal visits,
2. for the same level of education, contraception promotes moderately antenatal visits,
3. trivariate control (ED, FP, AV) of the risk of perinatal death reveals the following descending rank order in the strength of the mortality reducing effects: (a) antenatal visits, (b) education, and (c) family planning.

The implication for health programmes is to promote pregnancy care among the broad population segments of low education (slum/rural) to induce a substantial decrease in perinatal (and maternal) mortalities. But the greatest impact in terms of (1) survival and (2) elongation of the birth interval is to promote among the uneducated and low educated population the 'protective triad' of antenatal visits, breast-feeding and family planning.

Conclusion

So far, the medical and paramedical professionals concerned with maternity care were in general not aware of the usefulness of feedback through routine monitoring on the job. The current analysis of an experimental MCM scheme in Indonesia focused on a 'triad of preventive input' that promotes reproductive health in terms of reducing both mortality and fertility. The findings were given in 3D display in order to make them accessible to the service professions. Understanding these patterns may lead to a better informed leadership at all levels of service provision—a solid basis for the expansion of social obstetrics into the suburban and rural centers of

maternity care. The current findings are based on the 'top referral/teaching system' of one nation and are not meant to be representative of more than the patient population receiving maternity services of high quality. However, the systematic analysis of such a massive pool (N=36 802 women with singleton births) provides opportunities to assess present methodologies of reporting. The current perception is that epidemiological thinking, backed by a rigorous strategy of analysis (Table 1) and a rigorous data display (Figs. 1 to 4), can broaden the conventional frontiers by perceiving new hypotheses that in turn lead to new pathways of analysis. Above all, monitoring may be broadened to take into account better defined variables, and in the meantime provide the scientific basis for action.

References

1. Jelliffe DB, Jelliffe EFP. Breast-feeding: world significance in obstetric practice. *J Trop Pediat* 1983; 29: 130–2.
2. FIGO News: Resumé of the minutes of the Xth general assembly of FIGO. *Int J Gynaecol Obstet* 1983; 21: 427–30.
3. Bernard RP. Maternity Care Monitoring: a new opportunity in service statistics. *Pop Reports*, J Hopk Univ, Baltimore 1977; J-17: 338–9.
4. Bernard RP, Kendall EM, Manton KG. International maternity care monitoring: a beginning. In: Aladjem A, Brown A, Sureau C, eds. *Clinical perinatology*. St Louis: CV Mosby, 1980; chapter 23: 521–59.
5. Bernard RP, Sulaiman S, Agoestina T, Kendall EM. Maternity care monitoring (MCM) in Indonesia: early findings and implications for the 1980s. *Indonesian J Obstet Gynec* 1980; 6(4): 191–290.
6. Bernard RP, Sulaiman S. Issue de la grossesse pour la mère et l'enfant: le risque biologique et les soins prénatals (SSM-13). In: Chelli M, Kharouf M, Daly RM, eds. *Le contrôle de la fertilité: progrès récents*. Tunis: STGO/ONPFP, 1983; chapter 3: 101–30.
7. Bernard RP, Sulaiman S. Maternity care and perinatal mortality in Indonesia. In: Del Mundo F, Ines-Cuyegkeng E, Aviado DM, eds. *Primary maternal and neonatal health: a global concern*. New York and London: Plenum Press, 1983; Section 6: 265–305.
8. Bernard RP, Sulaiman S. 3D Display of stillbirth in Indonesian obstetrics Part I: Birth weight, complications, and morbidity. *Médecine sociale et préventive* (Suisse) 1983; 28(5): 208–9.
9. Sulaiman S, Bernard RP. 3D Display of stillbirth in Indonesian obstetrics Part 2: Booking, referrals, and emergency arrivals. *Médecine sociale et préventive* (Suisse) 1983; 28(5): 210–11.
10. Bernard RP, Sulaiman S. Maternal and perinatal death in Indonesian university obstetrics: Risk display for selected social and biological determinants. In: *Proceedings X Intern. congress of prevent. & social medicine*. Heidelberg, FRG, 27 Sept–1st Oct, 1983. In press.
11. Chen CHC, Santiso RG, Morris L. Impact of accessibility of contraceptives on contraceptive prevalence in Guatemala. *Studies in Family Planning* 1983; 14: 275–83.
12. Kessel E. Maternity care monitoring: a new information system. In: ref 7, 1983; Section 6: 253–64.

APPENDIX H.

BREAST FEEDING MODULES FOR INTEGRATION INTO THE CURRICULUM OF HEALTH PROFESSIONALS *

MODULE 1: NUTRITIONAL REQUIREMENTS OF MOTHERS AND YOUNG CHILDREN

Maternal nutrition in pregnancy and lactation
Nutritional needs infants (0-1 year), toddlers (1-4 years),
Recommended Dietary Allowances (RDA)
Estimation of nutritional status: Maternal weight gain in pregnancy
(Use suitable weight charts)
Growth patterns infants, with special reference to growth of
infants exclusively breastfed (0-6 months), toddlers (1-4 years),
(breastfeeding + supplements)

MODULE 2: DIETS OF MOTHERS (PREGNANCY AND LACTATION), INFANTS AND TODDLERS

Mother: diets appropriate to culture, availability of foods, cost.
Infants: time of introduction of semi-solids, types of multimixes
for infants and toddlers.

MODULE 3: BREAST FEEDING: PRESENT SCIENTIFIC KNOWLEDGE

Anatomy and physiology of breast, function as a nurturing organ
Psychophysiology of lactation - reflexes (mother and infant)
Recent knowledge 1) biochemistry 2) specific advantages of breast
milk - anti-infective, anti-allergenic, contraceptive. Bonding
mother/child dyad.

MODULE 4: ECONOMICS OF BREASTFEEDING

Economics at family level and national level

MODULE 5: CULTURAL INFLUENCES ON BREASTFEEDING

1. Positive and supportive of breastfeeding
2. Negative influences
3. Beliefs related to breastfeeding in pregnancy and lactation
(cultural blocks)
4. Use of galactogogues or lactation suppressants.

* J. Trop. Pediat., in press.

MODULE 6: COMMUNITY INFLUENCES

Influences positive or negative which may influence lactation performance

1. Family level: Father of child, close relatives
2. Community level: Women's support groups (breastfeeding groups, women's associations, etc.)

Traditional birth attendants, religious leaders, primary health care workers

MODULE 7: BREASTFEEDING PATTERNS

1. Definition of breast feeding, mixed feeding, supplementary feeding
2. Breastfeeding in pregnancy, tandem nursing, night feeding
3. Prevalence breastfeeding at national level/international level. Pattern of influences
4. Reasons for decline (mothers stated reasons, real reasons)

MODULE 8: MANAGEMENT OF BREASTFEEDING (LACTATION KINESIOLOGY)

1. Hospital - pregnancy (advice and encouragement), puerperium (support and advice)

Postnatal practices: (i) in maternity wards (management mothers with Caesarian section, the use of nurseries, rooming-in (types), etc)

(ii) in pediatric wards; (? disruption of breastfeeding, flexible hours, maternal visits. Use expressed breast milk, rooming-in, etc.)

(iii) management of common problems in breastfeeding.

(iv) knowledge of community practices (use purgatives, special infusions, rejection colostrum, etc., time of first breastfeed, etc.)

MODULE 9: SPECIAL SERVICES IN HOSPITALS

1. Lactation counsellors - trained health professionals and/or breast feeding mother's support groups
2. Lactation clinics
3. Milk banks; methodology selection donors; collection colostrum, mature milk. Guidelines: use raw milk, pasteurization. Availability milk, surrogate mothers or from donors from maternity wards.

MODULE 10: BREAST FEEDING UNDER DIFFERENT SITUATIONS

Women "at risk". Sick mothers. Working women.
Infants "at risk". Premature babies. Sick infants.

MODULE 11: PHARMOKINETICS (DRUGS AND BREAST MILK)

- 1) Excretion drugs in breast milk ("over the counter", and prescription drugs. Maternal compliance).
- 2) Acceptable drugs, drugs uncertain data, drugs proscribed in breast feeding. Breast milk stimulants and suppressants.

MODULE 12: BOTTLE FEEDING (FOR MOTHERS WHO DO NOT OR SEEM UNABLE TO BREASTFEED)

- 1) Alternatives: Cow's milk, other animal milk (least cost suitable processed milk preparations, e.g. evaporated, full cream powdered, formula).
- 2) Hygienic preparation of feeds, feeding method (cup and spoon). Individual teaching of mothers.

MODULE 13: GOVERNMENT POLICIES: LEGISLATION

- 1) Working women (pregnancy and lactation benefits, lactation breaks, availability of creches)
- 2) Influence of formula industry - history, methods used in promotion of products
- 3) WHO/UNICEF. Code of marketing of breast milk substitutes. National adaptation of of Code in different countries.
- 4) Role of health professionals and industry.
- 5) Monitoring activities of formula companies. Relationship between health professionals and consumer groups.

MODULE 14: CONTRACEPTION AND LACTATION

Breast feeding as a partial contraceptive. Time of introduction other methods, barrier. Use of progestogens (type). Effects of contraceptives on volume and quality of milk. ? Effects drugs on neonate.

56

MODULE 15: GROUPS TO BE EDUCATED AT COMMUNITY LEVEL

Parents (especially father) and close relatives. Counselling during pre and postnatal period. Management breastfeeding advice (lactation kinesiology), nutrition in pregnancy and lactation. Breastfeeding in the older neonate during diarrhoeal episodes. Contraception and breast feeding.

3: School children

4: Community leaders (including religious leaders)

5: Primary health care workers (adapted to breast feeding pattern)

MODULE 16: METHODOLOGY OF TRAINING

Didactic lectures and discussion. Seminars, workshops. Practical demonstration and observation (wards, clinics) Field trips (villages, slums, etc.) Role playing, use of games (breast feeding ladder game, etc.) Posters, flip charts, slide sets, fotonovellas, comic books. Mass media (radio, television spots (appropriate messages)

MODULE 17: EVALUATION OF EFFECTS OF TRAINING

Cost effectiveness, cost benefit (nutritional, psychological, monetary)

Supervision students, retraining, refresher courses all cadres.

MODULE 18: SUGGESTED RESEARCH PROJECTS IN BREAST FEEDING

Examples: Prevalence studies urban, rural areas (data collection exclusive breast feeding versus mixed feeding, time of introduction first semi-solids)

Effects rooming-in, national prevalence

Morbidity patterns breast and bottle fed babies same district, slum, village, etc.

Diarrheal disease in hospital babies rooming-in, versus babies in nursery, etc.

Prevalence, tandem nursing, weight curves newborn and sibling, etc.

APPENDIX I: GUIDELINES FOR THE PROMOTION OF BREASTFEEDING IN HEALTH SERVICES*

Modern scientific investigation has still further endorsed the biological uniqueness of human milk and breastfeeding. Recent examples include the identification of species-specific growth modulators, the high concentration of some nutrients (including vitamin A) in colostrum, and the anti-fimbrial antigenic properties of secretory IgA.

In addition, new research on the psychophysiology of lactation has led to increased understanding of the significance of maternal reflexes and the need for information on management and practiced techniques to ensure successful breastfeeding.

These developments have not only re-emphasized the importance of breastfeeding but have also demonstrated scientific ways in which successful breastfeeding can be assured.

Significance in Indonesia

Breastfeeding has worldwide significance as regards optimal child nutrition, the prevention of infections and allergies in infancy, mother-baby emotional bonding, biological child spacing, and economic benefits for families and for the nation.

The global importance of breastfeeding has been abundantly endorsed by WHO, UNICEF, and other international agencies, including the International Pediatric Association and FIGO (International Federation of Obstetricians and Gynecologists). Its significance is also indicated by the U.S. Surgeon General's National Workshop on Breastfeeding and Lactation held in New York State in June 1984.

The promotion of breastfeeding in Indonesia is especially important because of the declining prevalence in lower socioeconomic, urban populations, with greater risks of diarrhea and marasmus and increasing birth rates. It also has significance in the prevention of malnutrition in the baduta (2 year old)

*Report from the Indonesian Pediatric Congress, Denpasar, July 1984.

as a part of a small but significant supplement to the weaning diet, and it also is one measure to decrease the risk of xerophthalmia, especially via vitamin-A-rich colostrum. In some urban areas, bottle feeding with formulas is leading to problems with cow's milk protein allergy. Also, in some parts of the country, declining breastfeeding has also been reported from rural areas.

The economic significance of human milk has been emphasized, and it has been recognized that a complete decline in breastfeeding in Indonesia would cost the country over 500 billion Rupiahs to purchase formula replacement and to fund additional services for diarrheal diseases and for family planning.

Important Role of Pediatricians

The prevalence of breastfeeding in communities is influenced positively or negatively by many factors, including facilities for working women, marketing pressure by formula companies, attitudes of mothers and families (e.g., modernness, unwarranted anxiety concerning effect on the figure, etc.), and the availability of up-to-date, scientifically correct information on advantages and practical techniques.

At the same time, the influence of practices in health services and of the advice of the health team is extremely important.

All members of the health team should play a part in programs to promote breastfeeding, including pediatricians, obstetricians, midwives, nutritionists, nurses, and primary health care workers. Cooperation between those responsible for prenatal and postnatal care is particularly needed.

The pediatrician has an especially significant role in providing advice and positive advocacy on the advantages of breastfeeding and on practical management, with evidence of practices which make for unnecessary difficulties.

The importance of pediatric activities has been clearly shown by the beneficial effects of rooming-in and modified perinatal procedures in various hospitals and of specialized Lactation Clinics in some teaching centers in

Indonesia. The significance of the neonatologist (with obstetrical colleagues) has been highlighted by Indonesian research results clearly indicating the importance of breastfeeding to perinatal health (especially the prevention of infections) and to child spacing.

Recommendations

The value of breastfeeding in child health has been recognized for some years in Indonesia, as indicated by reports from the "Second National Symposium of the Promotion of Breastfeeding," Manado, 1980, and from the 1982 Travelling Seminars on Breastfeeding.

Importantly, national governmental support has also been given by inclusion in Pelita IV (1989) (Quote from Pelita IV)

In order to improve the promotion of breastfeeding further and to reverse declines where these have occurred, the Indonesian Pediatric Association makes the following recommendations:

1. Health Services

(i) Prenatal. Attention needs to be given to breast examination (especially for inverted nipples), maternal nutrition, and advice and encouragement concerning the advantages of breastfeeding, including practical management.

(ii) Delivery. The excessive use of anesthetics and routine episiotomy should be avoided.

(iii) Postnatal. Close mother-newborn contact from birth should be encouraged with breastfeeding commenced as soon as possible, preferably within the first hour after delivery, without the use of prelacteal feeds of water or glucose-water. Similar procedures should be followed as soon as possible after Caesarian Section. The importance of colostrum as a source of nutrients and anti-infective protection needs emphasis. Early breastfeeding also increases milk production, assists in uterine contraction, and facilitates mother/child bonding.

Rooming-in of mother and newborn should be the normal procedure, with on-demand feeding (initiated by either the baby or the mother) and no supplementary feeds.

Advice on practical techniques of management should be available, especially for less experienced mothers, such as primips in urban nuclear families.

Discharge packs (samples) of formula should not be given to mothers.

(iv) Special Care Neonates. Breast milk should be used whenever possible. This should be expressed when the baby cannot suckle (e.g., small pre-term), but early mother-neonate contact is desirable with breastfeeding as soon as possible.

(v) Early Infancy. In mothers who may have difficulties during breastfeeding (e.g., primips in urban communities, or those who have had previous problems, etc) follow-up is advisable at a week or so after discharge, by home-visiting or by return to the maternity clinic, as most convenient.

(vi) Pediatric wards. Arrangements should be made for the mothers of sick breastfed babies to be admitted with their infants. Conversely, sick lactating women admitted to hospital should be accompanied when possible by their breastfed babies, and special attention should be given to maternal nutrition.

(vii) Special Services. In large centers, Lactation Clinics, directed by trained perinatal professionals (including pediatricians) need to be developed for practical teaching of the techniques of breastfeeding, including the management of the normal and the prevention and early treatment of abnormalities or problems such as engorgement, blocked ducts, sore nipples, poor weight gain, "insufficient milk," difficulties with infant sucking, etc. The use of Breast Milk Stores (or Banks) needs to be developed and, in Indonesia, will usually be on an individual or personal basis (e.g., mother's milk stored for her own baby).

(viii) Other Services. The child spacing effect of lactation needs reinforcing with technological forms of contraception at different times after birth depending on the pattern of breastfeeding, especially the sucking stimulation. In all situations, non-hormonal contraceptives are recommended for lactating women. If hormonal contraceptives are used, progestogen compounds are preferable or, less satisfactorily, low dose estrogen-containing mini-pills.

(2) Education and Training

(i) Types of Training. This should include basic training, refresher courses, and specialized training. It is recommended that considerable attention be given to breastfeeding in the basic training of all cadres, including medical and nursing students. This training should be both classroom and, more importantly, practical. It is recommended that the coverage should be extensive, ranging from the psychophysiology of lactation to the practical management of breastfeeding. This can be integrated through training in modules (Appendix H) or given as a separate course in pediatrics or elsewhere. In either case, practical experience is essential, including involvement in problem solving.

In view of the recent advances in knowledge, short refresher courses are recommended for health personnel, including pediatricians. Again, these should be a combination of theory and practical, ideally in association with a Lactation Clinic and with other colleagues from the health team (e.g., obstetricians, nurses, midwives, nutritionists).

Specialised training is recommended for those who will be concerned with the development of Lactation Clinics. Various types of training programs have evolved in different parts of the world. All include a blend of theory and practical and are designed to produce individuals with particular experience, knowledge, and skill in the field of breastfeeding, both in normal lactation and in mothers experiencing difficulties. It is recommended that teams of health professionals--ideally a pediatrician, an obstetrician, and a senior nurse--be trained as lactation specialists in order to develop Lactation Clinics at appropriate health training centers throughout the country.

(ii) Special Groups. It is recommended that special information and sensitization sessions be held for hospital administrators, particularly concerning the economic advantages of rooming-in, and for senior tutors and educators in nursing and midwifery, particularly those concerned with prenatal, neonatal, and pediatric care.

(iii) Educational Material. It is recommended that appropriate educational material concerning breastfeeding be made available in libraries or at medical schools and nursing schools. These should include (a) available books in Bahasa Indonesia, including the recently produced manual on "Guidelines for Rooming-In," and in English, (b) relevant newsletters, and (c) a slide set related to the Indonesian situation, with a projection.

(3) Research

It is recommended that all forms of research into breastfeeding be encouraged but that practical studies be given priority. These would include, for example: (i) the measurement of the effect of different modifications in health services, especially rooming-in; (ii) detailed anthropological studies on breastfeeding and child health (morbidity, mortality) concerning traditional practices, including variations in the use of colostrum, and (iii) locally relevant methods of assessing adequate growth and health in breastfed babies, etc.

(4) Miscellaneous

(i) It is recommended that the WHO/UNICEF Code of Marketing Breastmilk Substitutes be officially translated into Bahasa Indonesia and widely disseminated through all available channels including appropriate medical and nursing journals.

(ii) It is also recommended that the pediatric community actively encourage the development of Breastfeeding Mothers Support Groups, wherever feasible, and take a positive advocacy role in reviewing and developing (a) legislation for monitoring unethical marketing practices for formula companies and (b) effective legislation for breastfeeding women in the work force (e.g., maternity and lactation leave, etc.).

APPENDIX J.

GROWTH PATTERNS IN FULLY UNILATERAL BREASTFED
BABIES AND TWINS IN THE FIRST SIX MONTHS OF LIFE

E.F.P. Jelliffe,* D.B. Jelliffe and B. Lares

In recent years, biological feeding has been under scrutiny by mathematically oriented scientists.

The adequacy of breast milk to sustain acceptable, adequate growth for the first 3 to 6 months of life has been questioned. The term "faltering" growth introduced into the medical literature has caused unnecessary anxiety among societies who have traditionally breastfed infants successfully for six months or longer with little or no supplementation.

This modern "scientific" concept has not taken into account a large number of factors among which maternal health and nutritional status, size and maturity of the infant at birth, type of breastfeeding, the uncertainty of the recommended dietary allowances for infants and mothers, variation in the volume and composition of breast milk produced, individual infants' suckling behavior, appetite and activity patterns.

Also, the influence of maternal reflexes on health and nutritional status of the infant and the use of inappropriate reference data devised from children receiving mainly bottle feeding and early semi-solids (e.g., NCHS) must be considered.

The present study which includes full-term solely breastfed infants (twins or infants fed on one breast only) indicates that both these categories of babies born to well-nourished, highly motivated North American mothers, thrive well on human milk alone for six months. These results

*Lecturer and Researcher, Population and Family Health Division, School of Public Health, University of California, Los Angeles.

64

clearly emphasize the adaptability of maternal breast milk production and indicate that frequent suckling and confidence are key elements.

If a woman can feed twins or can suckle her infant successfully on one breast, this fully endorses the ability of mothers to breastfeed a single baby successfully.

It is apparent that there is a need for reference data exclusively for breastfed babies that reflect the normal variation in range of growth which can occur after three months or so, sometimes presenting as a relatively slow growth which is a normal physiological phenomenon.

65

Post Sixth Indonesian Pediatric Congress Course

Denpasar, 20 Juli 1984



Editor

dr. Hendra Santoso

dr. Putu Suwendra

PENYELENGGARA

BAGIAN ILMU KESEHATAN ANAK

FAKULTAS KEDOKTERAN UNIVERSITAS UDAYANA

D E N P A S A R

6/2

BREASTFEEDING AND IMMUNITY : ADAPTABLE DEFENSE IN DEPTH

Derrick Jelliffe *
E. F. Patrice Jelliffe

As recently as 1970, human milk was not considered to have active anti-infective properties, and its obvious protective effect against infectious diarrhoea in early infancy was considered to be due entirely to its cleanness and lack of opportunity for bacterial contamination and multiplication. It was believed that, unlike calves and piglets, the human infant received immunity exclusively transplacentally.

Recent work has, in fact, revealed an increasing array of positive protective factors, both cellular (1-4,000 mm³ macrophages, lymphocytes) and soluble ("humoral") substances. The latter include lysozyme, lactoferrin, the bifidus factor, interferon, lactoperoxidase and immunoglobulins, especially secretory IgA. Such protective substances are both general and specific--that is, related to the microbial flora to which the mother has been exposed (e.g., via the nutritional components, the gut-mammary axis, etc.). As with the nutritional components of breast milk, the protective factors have complex, complementary and synergistic interactions.

Mechanisms. Protection is afforded by numerous interacting mechanisms, including (i) direct lethal action against some bacteria, viruses, fungi (*Candida albicans*) and even parasites (*Giardia lamblia*) (via phagocytosis and bacteriostasis both from anti-microbial substances in milk and possibly from secretions from Montgomery's tubercles), (ii) maintaining a dominant bifidus intestinal microflora and, conversely, suppressing such potential pathogens as *Esch. coli* and *Clostridia* subspecies (via pH, fatty acids, etc.), (iii) inhibiting fimbrial antigens responsible for microbial attachment to mucosal surfaces (e.g., *Esch. coli* in the intestine; pneumococci and *H. influenzae* in the oropharynx), (iv) decreasing the permeability of the relatively "open" neonatal intestinal wall to pathogens and foreign protein macromolecules.

Characteristics. Immunologically, breastfeeding has the following characteristics : (i) it is dyadic (including protection for the mother via phagocytosis in the lacteals possibly through a diathelic mechanism as in other mammals ;

-- (ii) it forms a biological anti-infective umbrella, especially via colostrum, during the dramatic and danger-filled change from aquatic, "parenterally-fed" fetus to air-breathing, mouth feeding infant ;

-- (iii) it is *not* effective against all organisms (c.f. tuberculosis, whooping cough) ;

-- (iv) it is especially protective against enteral infections (including those commencing in the oropharynx, such as otitis media and syncytial virus respiratory infection) and those infections whose portal of entry is via the intestine (c. f. poliomyelitis) ;

-- (v) its protective value can be considered to be a part of a balance with the dose and pathogenicity of the bacteria or viruses swallowed by the infant ;

* Professor of Pediatrics and Public Health, University of California, Los Angeles, California, USA.

- (vi) its obvious effectiveness is, therefore, more striking in communities where the dose and pathogenicity of environmental and domestic organisms is likely to be high--that is, those with poor sanitation and/or practices likely to introduce high doses of micro-organisms into infants mouths (e.g., disadvantaged areas *both* in less and more technically developed countries).

Practical examples. The effectiveness of breastfeeding in protecting against infections can be illustrated by innumerable practical situations, including (i) historical reviews of the recent past, (ii) the high incidence of infantile cholera in bottle-fed babies in an outbreak of cholera in Bahrain, (iii) the prevention of otitis media in Eskomis, (iv) the reduction of neonatal infections, including diarrhoea ("colostrum deficiency syndrome") in maternity hospitals including Costa Rica, (v) the treatment of *Esch. coli* diarrhoea with human milk, (vi) the chemoprophylactic use of colostrum in high-risk neonates (Argentina, India), (vii) the use of colostrum eye drops in the newborn in India, etc.

Discussion. Breastfeeding furnished protection against infection from the mouth, to the oropharynx to the intestine. This can be considered as "in-depth" as (a) it extends through the alimentary canal and (b) it comprises an interconnected protective network from within the lumen to the mucosal surface to the intestinal wall itself. Its adaptability to local needs and risks is reflected by the variation of some anti-infective properties, particularly secretory IgA, with current and past maternal micro-flora.

Currently, much intricate scientific investigation is increasing knowledge in this complex and intriguing immunological field. However, more than enough is known already to indicate practical guidelines, including, for example, the optimal use of colostrum, the need to minimize the unnecessary introduction of microorganisms into the mouth of the young breastfeed infant and the need for care in handling expressed breast milk to limit damage to its anti-infective properties.

The mammary glands are species specific immunological secretory organs and breast milk (including colostrum) has the special function of assisting in the protection against infection, especially during the dangerous transitional period of exterogestate fetal life--that is, from 6 to 9 months of age.

(An Outline)

1. Training

Upgrading of midwives and nurses involved in rooming in (6 days @ 2 hours once a year for 20-30 persons)

Topics discussed :

- Physiology of lactation
- Advantages of breastmilk
- Advantages of rooming in
- Nutrition in pregnancy and lactation
- Communication
- Guidelines for rooming in

2. Health Service

2.1 Outpatient clinic

2.1.1 Information

Mothers visiting the antenatal care clinic should have at least one lecture / demonstration of :

- breast care
- nutrition in pregnancy
- advantages of breastmilk
- advantages of rooming in

2.1.2 Breast examination at third trimester

2.1.3 Exercise for pregnant woman

2.2 Delivery Room

- deliver the baby with least trauma possible
- give the baby to mother as soon as possible (within 1 hour) for directly contact and stimulation of breast
- take mother and baby together to wards after 2 hours
- form delivered by S.C
- the baby will stay in the special care unit until the mother is well enough to be brought to the wards together with the baby
- babies with RDS are taken care in the newborn units but mothers are encouraged to breastfeed by stimulating the breast by massage or hand pump

2.3 Wards

- the baby is put in a cot next to the mother's bed
- weighing of the baby is done only once a day in the morning not before and after every feeding
- feeding on demand
- no prelacteal feeding
- if breastmilk still not enough and baby is fretful add formula by spoon after feeding from mother
- mothers are taught how to hold baby, bath baby, etc
- the pediatric resident visit baby every day
- during visiting hours the baby stays with the mother

2.4 Follow up clinic

When there are no problems in breastfeeding the babies return to the well baby clinic. When there are problems of breast feeding after 1 week the babies and mothers were seen at the lactation clinic by me (twice a week).

(Prepared by Dr. Rulina.)

Minister of Health of the Republic of Indonesia

- Considering: a. That breastmilk is the best and most suitable for use as baby food;
- b. That, under certain circumstances, in step with the mother's health status and with medical instructions, breastmilk could be replaced with breastmilk substitutes;
- c. That, in order to safeguard the growth and the health of infants, there exists the need for preservation of breastmilk substitutes and regulation for the marketing of breastmilk substitutes;
- d. That, for this purpose, there is need to stipulate a regulation regarding the means of marketing breastmilk substitutes;

- In view of: 1. Basic Health Act No. 9 of the year 1960;
2. Minister of Health's Regulation No. 329/Men.Kes/per/XII/76 dated 31 December 1976 concerning the production and distribution of foods and beverages;
3. Minister of Health's Regulation No. 79/Men.Kes/Per/III/1978 dated 20 March 1978 regarding food labels and advertising;
4. Minister of Health's Regulation No..... concerning efficient production methods for infant and children's foods;

Has resolved

To stipulate: Minister of Health's Regulation concerning the means of marketing breastmilk substitutes.

CHAPTER I

General Provisions

Article 1

Under this Regulation, what is meant by:

BEST AVAILABLE COPY

1. breastmilk is wholesome mother's milk most suitable for infant feeding;
2. health care & health service unit is every physical unit operating in the area of primary health care system;
3. corporate body is an operating company intent upon carrying business in the field of breastmilk substitutes;
4. infant is a human being not older than twelve months;
5. bottle is a milk-filled container in use to substitute breastmilk;
6. maternity centre is a place outside a home in use for delivery in charge of a midwife, assistant-midwife or health staff;
7. corporate body personnel is every person in the employ of a corporate body;
8. health personnel is a person who works for a health service unit or who works on voluntary basis or who contributes his/her services in the area of primary health care system;
9. label is a sign in writing or in the form of an illustration or in the form of other statements, attached to the packing as explanatory notes;
10. supplementary diet is a diet intended to supplement breastmilk and/or breastmilk substitutes, so as to meet the child's need for nutritives;
11. Weaning food is food intended for use during the weaning period or during a transition period, so as to get a baby or a child accustomed to eating normal food;
12. marketing is offering, delivering or displaying breastmilk substitutes for sale, or conducting home visits for sales purposes or giving out samples freely, or in possession of stocks at such places as grocery, shop, market place, stall or small shop, in display counters other than those mentioned above, except if breastmilk substitutes are decidedly destined for own consumption;
13. packing is wrapping paper used for packing baby or child's food, capable of retaining the quality of baby food, and which is not harmful to health;
14. breastmilk substitutes are baby foods capable of meeting the needs of infants for nutrients in order that they might have a normal growth, and if necessary, as they are originally intended, to serve as breastmilk substitutes;

15. standard of quality is the Minister's stipulation concerning the name, description, composition, additives, adulteration, hygiene, container, label and other stipulations for testing breastmilk substitutes;
16. container is a receptacle used to hold or to pack breastmilk substitutes directly correlated with the contents, including the lid;
17. advertising is an undertaking designed to step up the sales of breastmilk substitutes through advertising in mass media, professional publications, books dealing with infant care and lactation, posters, billboards, brochures, placards, manuals, cards indicating height and weight measurements calendars;
18. health service channel is an interrelated unit group operating in the area of primary health care system;
19. primary health care system is any system functioning at the national level, not a government nor a private system operating in the field of health care, including maternity centre facilities.

CHAPTER II

GENERAL PROVISIONS

Article 2

Breastmilk substitutes marketed in Indonesia have to meet certain conditions like safety and health conditions, quality standard or other terms and conditions stipulated by the Minister.

Article 3

Nursing bottle and nipple in use have to meet the conditions set forth by the Health Minister.

Article 4

A license should first be sought from the Health Minister in marketing breastmilk substitutes, nursing bottles and nipples referred to under Articles 2 and 3.

Article 5

Breastmilk substitutes, nursing bottles and nipples alluded to under Articles 2 and 3 must first be registered at the Department of Health prior to marketing these items.

CHAPTER III

MARKETING

Article 6

A corporate body is not permitted to sell breastmilk substitutes directly to lactating mothers or to anyone acting as representative of the interested family.

Article 7

It is prohibited to utilize samples of breastmilk substitutes, nursing bottles or nipples provided without charge or at a reduced price to pregnant and nursing mothers as sales promotion techniques.

Article 8

Breastmilk substitutes are prohibited from being marketed with such

statements as: a) having the same quality as mother's milk;

b) suitable as substitute to breastmilk.

Article 9

(1) Supplementary diet, weaning food and sweet condensed milk are forbidden from being marketed as breastmilk substitutes;

(2) In marketing supplementary diets, weaning foods, and sweet condensed milk, a statement must be attached saying that all these food items could not used as substitutes to breastmilk.

Article 10

Personnel of a corporate body are not permitted to conduct home visitings or to contact pregnant and nursing mothers in maternity/health centres for the purpose of selling breastmilk substitutes, nursing bottles or nipples.

Article 11

Reimbursement of services rendered by personnel of a corporate body must not necessarily be effected in the form of sales function or in boosting the sales of breastmilk substitutes.

Article 12

In case a corporate body enters into a working contract for the marketing of breastmilk substitutes, nursing bottles and nipples, the terms of the contract in question should be submitted by the corporate body concerned to the Minister for filing and recording.

13

CHAPTER IV
SALES PROMOTION

Article 13

A corporate body is prohibited from undertaking sales promotion of breastmilk substitutes, nursing bottles and nipples to the public.

Article 14

Sales promotion, including all forms of advertising aimed at health personnel, is but limited in the form of factual and ethical information.

Article 15

Personnel of a corporate body are not permitted to conduct home visitings nor to contact expectant/nursing mothers in health/maternity centres for the purpose of presenting free samples, rendering services or staging a display of breastmilk substitutes, nursing bottles and nipples.

Article 16

A corporate body is not permitted to advertise:

- a. breastmilk substitutes, nursing bottles and nipples;
- b. everything with an intent to identify the corporate body as the producer and seller of breastmilk substitutes, or to identify breastmilk substitutes under a trade name;
- c. methods of using breastmilk substitutes.

Article 17

A corporate body is not permitted:

- a. to put on display photos, pictures, illustrations, associating a healthy baby with breastmilk substitutes, trademark or trade name of the corporate body concerned;
- b. to take an active part in the open display of breastmilk substitutes.

Article 18

A corporate body is required to forward to the Minister:

- a. a sheet of all advertised breastmilk substitutes and of all advertising firms, along with other particulars regarding the date and advertising site;
- b. radio and TV recordings, mentioning or depicting a child and breastmilk substitutes;

- c. all promotional stuffs on breastmilk substitutes, including label, packing, brochure, poster and everything relating to what has been stated under Article 16.

CHAPTER V

LABEL

Article 19

A label has to meet the following terms and conditions:

- a. complying with the terms contained in the prevailing legislative ordinance issued by the Minister regarding labels in use for breastmilk substitutes;
- b. meeting other stipulations stated on the standard for breastmilk substitutes, listed in the Indonesian Food Codex;
- c. inserting a statement that breastmilk is the best infant food;
- d. inserting a statement that failure in carrying out the prescribed instructions regarding usage, preparation and storage might endanger the health of infants.

Article 20

It is prohibited to insert the words "humanized" or "maternalized" on the label or packing of breastmilk substitutes.

Article 21

It is prohibited to insert misleading instructions on the labels of sweet condensed milk and of milk products which are not substitutes to breastmilk, for it might create an assumption that the products concerned could be used as well as breastmilk substitutes.

CHAPTER VI

LITERATURE

Article 22

Literature relating to breastmilk substitutes must always make mention of the fact that mother's milk (breastmilk) is the best infant food.

Article 23

Literature dealing with the care of mother and child. distributed and financed by a corporate body for the purpose of providing information to expectant/lactating mothers, should as well include an explanation regarding

breastcare during the prenatal and postnatal periods.

Article 24

Literature in use as directive, instruction, and document, designed to train and to supervise personnel of the corporate body concerned in the field, having to do with marketing and sales promotion, should be left in the hands of the Health Minister.

CHAPTER VII

PRIMARY HEALTH CARE UNIT

Article 25

- (1) Samples of breastmilk substitutes, nursing bottles and nipples could be forwarded to a polyclinic, hospital or maternity centre at the request of the polyclinic, hospital or maternity centre concerned;
- (2) This request has but the following aim and purpose in view:
 - a. to introduce milk products and how to use these products to the health personnel;
 - b. to provide instructions to expectant/nursing mothers about the method of using the products concerned.

Article 26

Personnel of a corporate body are not permitted:

- a. to cooperate in whatever form or to make use or to request the use of facilities available at the primary health care system in promoting consumption of breastmilk substitutes;
- b. to make use of the health service channel to stick, distribute or to circulate placards, posters, literature or every advertising form or marketing form or to put breastmilk substitutes on display.

Article 27

A corporate body is prohibited to provide equipment using the name or sign of the corporate body concerned or the marketed products, to the Primary Health Care Unit.

CHAPTER VIII

CORPORATE BODY

Article 28

- (1) A corporate body has to monitor its business activities related with this Regulation.
- (2) The results of monitoring should be forwarded to the Minister.

Article 29

A corporate body should at least once in a year provide a copy of this Regulation to its fieldworkers and to other health personnel and health institutions, with whom it maintains a close contact.

Article 30

A corporate body has to submit to the Health Minister:

- a. educational material dealing with breastmilk substitutes given free of charge by the corporate body concerned;
- b. educational stuffs in use for the training of its fieldworkers.

Article 31

Personnel of a corporate body are not permitted to wear dresses as doctors, nurses or health workers, or wearing a type of dress in such manner that it might give a false assumption that the personnel in question are doctors, nurses or health workers.

CHAPTER IX

PENALIZATION

Article 32

With no intent to underestimate the stipulations in the Penal Code and in other legislative ordinances, administrative sanction in the form of revocation of the registration number and other actions based upon the prevailing legislative act could be imposed against an infringement of the provisions stated under Articles 2, 3, 6, 7, 8, 9, 10, 13, 15, 16, 17, 19, 20, 21, 26, 27 and 31.

CHAPTER X

Fa

TRANSITION RULING

BEST AVAILABLE COPY

77

Article 33

The existing provisions at the time this Ministerial Regulation is in force, still hold good so long as they are not contradictory to the stipulations indicated in this Regulation.

Article 34

The Director General of Food and Drug Control is authorized to arrange a transition period for breastmilk substitutes subject to this Regulation.

CHAPTER XI

CONCLUSION

Article 35

Things of a technical nature which are not sufficiently accommodated in this Regulation, shall be further arranged by the Director General of Food and Drug Control.

Article 36

This Ministerial Regulation takes effect as of the date it is established.

In order that everyone may get acquainted with this Regulation, the Minister has ordered the enactment of this Regulation through its insertion in the State Gazette.

Established in: Jakarta

Date:

MINISTER OF HEALTH
OF THE
REPUBLIC OF INDONESIA

(Dr. SUWARDJONO SURJANINGRAT)